Treadwell&Rollo

31 March 2005
Project No. 2893.14.0200

Mr. George Ford
The Presidio Trust
1750 Lincoln Avenue
P.O. Box 29052
San Francisco, CA 94129-0052

Subject: **Asbestos Worker Exposure Assessment Results**
**Asbestos Health and Safety Evaluation**
Presidio of San Francisco, California

Dear Mr. Ford:

Treadwell & Rollo, Inc. is pleased to submit the analytical results of air samples used to assess the potential for asbestos exposure to workers performing revegetation tasks at Baker Beach Disturbed Areas 1 and 2 and Presidio Golf Course within the Presidio of San Francisco, California (Figure 1). This worker exposure assessment was outlined in our proposal dated 5 September 2003 as approved by the Presidio Trust (Trust) on 12 November 2003. The exposure assessment is part of an Asbestos Health and Safety Evaluation that includes soil and air sampling to evaluate potential asbestos exposure related to native serpentine soils at six sites selected by the Trust.

The six sites where revegetation activities are planned are located throughout the Presidio (Figure 1) and include:

- Baker Beach Disturbed Areas 1 and 2,
- Landfill 2,
- Building 633 Firing Range,
- California Highway Patrol Pistol Range (CHP), and
- Presidio Golf Course.

**Treadwell & Rollo, Inc.** *Environmental & Geotechnical Consultants*
555 Montgomery Street, Suite 1300, San Francisco, California 94111
Telephone (415) 955-9040, Facsimile (415) 955-9041

**BACKGROUND**

The soil sampling and analysis to identify the presences of asbestos at the six sites was performed in March 2004 in accordance with Treadwell & Rollo's *Asbestos Field Sampling Plan* dated 3 December 2003 and *Addendum* dated 8 March 2004. The soil sampling results and associated data are presented in Treadwell & Rollo's *Soil Sample Results, Asbestos Health and Safety Evaluation*, dated 21 April 2004, included on CD in Attachment A. Naturally occurring asbestos was identified at five of the six sites tested, but was not detected at CHP (Table 1, Attachment A).

The soil sampling analytical results for these sites indicate that asbestos was detected in samples from all sites except the CHP Pistol Range. The reported asbestos concentrations included:

- Baker Beach Disturbed Area 1 – Asbestos present in all eight samples at concentrations ranging from <1 percent chrysotile to 10 percent. Previous data indicated asbestos in one of two samples at 0.5 percent.
- Baker Beach Disturbed Area 2 – All 17 samples collected reported asbestos present at concentrations ranging between 2 percent and 10 percent. Previous data indicated asbestos in one of three samples at 1 percent.
- Landfill 2 – Only one of seven samples collected contained asbestos (at 3 percent).
- Building 633 Firing Range – Three of five samples collected contained asbestos (all <1 percent).
- Presidio Golf Course – Concentrations of asbestos ranged from <1 percent to 2 percent in five the six samples collected.

The potential for asbestos exposure was evaluated at Fill Site 5 (FS 5) in the Fall of 2003 as documented in Treadwell & Rollo's *Asbestos Exposure Survey Results, Fill Site 5*, dated 15 October 2003. Asbestos was present in FS 5 serpentine soils at a maximum of 1 percent. Exposure survey air sampling results indicated that respiratory protection for workers involved in revegetation activities is not required at FS 5.

Based on the soil sampling results and the previous exposure assessment performed at FS 5, respiratory protection for workers involved in revegetation activities at CHP Pistol Range and Building 633 Firing Range is not required (Attachment A). However, because of the documented presence of asbestos at the Building 633 Firing Range site, the revegetation workers will require Asbestos Awareness Training. The reported asbestos levels at the four other sites (Baker Beach Disturbed Areas 1 and 2, Landfill 2, and the Presidio Golf Course) required further assessment to evaluate whether asbestos in soil within the exposed serpentine outcrops could represent a respiratory health concern for plant restoration workers.

**INITIAL EXPOSURE ASSESSMENT**

The initial asbestos exposure assessment scope of work included:

- Performing an exposure assessment for personnel conducting revegetation activities in areas containing asbestos, including air sampling, 8-hour personal air monitoring, 30-minute exposure limit sampling, and perimeter and confirmation air sampling;
- Evaluating air sample results at Baker Beach Disturbed Areas 1 and 2, and Presidio Golf Course; and
- Preparing this report.

Prior to the start of the exposure assessments, it was determined by the Trust and National Park Service (NPS) that the exposure assessment proposed at Landfill 2 would not be conducted at this time, because the Presidio Clarkia, a special status plant specie, was in bloom. Additionally, because the asbestos content in soils at Landfill 2 is within the range present at the other sites, the exposure assessment results at those sites will provide an indication of the conditions at Landfill 2.

On 11, 12, and 13 May 2004 Treadwell & Rollo and RGA Environmental, Inc. (RGA) performed the initial workers exposure assessment to collect samples to evaluate airborne asbestos exposure for personnel conducting revegetation activities in the serpentine outcrop areas at Baker Beach Disturbed Areas 1 and 2 and Presidio Golf Course (Figures 2 and 3). The surface topography of Baker Beach Disturbed Areas 1 and 2 is very steep with an approximate 240 feet of vertical change (Photo 1). The serpentine outcrop at the Presidio Golf Course is relatively flat (Photo 2).

At each site, the areas reporting higher concentrations for asbestos in soil were selected for the exposure assessment (Figures 2 and 3). These areas represent the likely "worst-case" for exposure to asbestos, based on the soil analytical results. The objective of the worker exposure assessment was to collect air samples from the breathing zone during a typical plant restoration eight-hour workday.

Mr. Peter Brastow of the NPS outlined the type of revegetation activities to be conducted, the duration of each activity that occurs in a typical 8-hour workday, and any other engineering controls that may impact the revegetation activities. For example, the plant restoration activities may include an hour or two of mobilization time in a green house area, four hours of planting onsite, and two hours of demobilization activities. The workers may wear gloves, use spades in planting tasks, and apply appreciable water to the soil. Based on the activities outlined by Mr. Brastow, the exposure assessment team reproduced conditions during the exposure sampling to represent the actual worker onsite exposure.

The exposure assessment team included up to three team members (Treadwell & Rollo and RGA employees certified for respirator use per Occupational Safety and Health Administration [OSHA] requirements), wearing respiratory protection, Tyvek[tm] clothing and personal air monitoring samplers while onsite (Photographs 3 through 4). The primary work the exposure assessment team performed during the assessment was the hand eradication (weeding and debris removal) of non-native plant species. Activities conducted offsite were assumed to have zero asbestos exposure. The personal air monitoring was conducted using portable low volume sampling pumps set with a constant flow rate of 2.0 liters per minute (lpm) over the time period that a typical worker would be onsite. The personal air samples were collected in the breathing zone of the workers and were evaluated to estimate an 8-hour time-weighted average (TWA). The personal sample results are summarized in Table 1.

For Baker Beach Disturbed Areas 1 and 2, the exposure assessment was divided into morning and afternoon sampling shifts to incorporate the entire study area (Figure 2). Therefore, the perimeter samples were moved accordingly to gather appropriate upwind and downwind exposure. Two perimeter air samples were collected as background samples on the upwind and downwind perimeter of the revegetation area for each of the sites (Figures 2 and 3). The perimeter sample results are included in Table 1.

Excursion air samples were taken at the discretion of the field leader in order to represent worst-case scenario conditions of a volunteer during the eight-hour workday. The excursion samples were collected for 30-minute intervals when the most "at-risk" planting occurred i.e., when prevailing winds occur at the site of revegetation. Two excursion samples were collected from each site during the exposure assessments. The excursion sample results are included in Table 1.

All air samples were collected on phase contrast microscopy (PCM) air sampling cassettes (25 mm diameter) with a 0.8 micron filter and analyzed at Schneider Laboratories, Inc, a California certified laboratory located in Richmond, Virginia. The samples were analyzed using PCM National Institute for Occupational Safety and Health (NIOSH) 7400 Method.

The personal and perimeter air samples were compared to the permissible exposure limit (PEL) established by OSHA. The PEL is 0.1 fibers per cubic centimeter (f/cc) over the TWA. The excursion air samples were compared to the short-term exposure limit (STEL) of 1.0 f/cc. The results of the sampling indicate that the exposure limits are well below the PEL and STEL, respectively for all tested samples. Results of the personal monitoring and perimeter samples are summarized in Table 1. A copy of the air sample analytical laboratory reports is presented in Attachment B.

## CONCLUSIONS

The results from the air sample analyses performed at Baker Beach Disturbed Areas 1 and 2, and the Presidio Golf Course for asbestos exposure indicate that although asbestos is present in serpentine outcrops at the sites, air monitoring sample results indicate airborne asbestos is well below the PEL and STEL during plant restoration worker activities.

As noted on Table 1, a perimeter sample cassette at Baker Beach Disturbed Area 2 was clogged with soil particles, thus no fiber count was possible.

Based on these air sample results, respiratory protection for workers involved in revegetation activities at Baker Beach Disturbed Areas 1 and 2, and Presidio Golf Course are not required. However, because of the documented presence of asbestos at the sites the workers will require Asbestos Awareness Training.

Confirmation air sampling will be performed at Baker Beach Disturbed Area 2 (the site having the highest asbestos content in soil) at the start of revegetation activities to verify that similar air sampling results are obtained during the conduct of actual planting activities.

During revegetation activities at these sites, health and safety will be achieved by workers complying with one of the following plans or procedures.

- Treadwell & Rollo has prepared a project-specific Health and Safety Plan (HSP) covering the Planting in Naturally Occurring Asbestos in Soil field activities. Site-specific HPS addendums will be prepared for each of these sites. The HSP addendums will include the potential health and safety risks associated with the field activities including the results of asbestos sampling, procedures for situations where unhealthy and/or unsafe conditions could occur, a description of the route to the nearest hospital and additional related items. The HSP must be read and signed by all Trust field personnel prior to the start of field activities.

- The NPS has also developed health and safety procedures for performing plant restoration activities in serpentinite areas of the Presidio which NPS workers will follow.

- Additional parties, such as remediation contractors, may develop and adhere to other HSPs equivalent to the Trust HSP and addendums for work in these areas, as appropriate.

If you have any questions after reviewing this letter report, please contact us.

Sincerely yours,
TREADWELL & ROLLO, INC.

Steffen P. Steiner, CAC #92-0850
RGA Environmental, Inc.

Michael A. Chamberlain, P.G.
Senior Project Geologist

**Enclosures:**

| | |
|---|---|
| Table 1 | Asbestos Results for Air Samples |
| Figure 1 | Site location Map |
| Figure 2 | Baker Beach Disturbed Areas 1 and 2 Asbestos Sampling Locations |
| Figure 3 | Presidio Golf Course Asbestos Sampling Locations |
| Photograph 1 | Baker Beach Disturbed Area 2A |
| Photograph 2 | Serpentinite Soils at Presidio Golf Course |
| Photograph 3 | Exposure Assessment at Baker Beach Disturbed Area 2A |
| Photograph 4 | Exposure Assessment at Baker Beach Disturbed Area 2 |
| Attachment A | Soil Sampling Results Letter Report (on CD) |
| Attachment B | Air Sample Laboratory Reports (on CD) |

**Attachment A**

**Soil Sample Results, Asbestos Health and Safety Evaluation**

**(Treadwell & Rollo, 21 April 2004)**

Treadwell&Rollo

21 April 2004
Project No. 2893.14.0200

Mr. George Ford
The Presidio Trust
1750 Lincoln Avenue
P.O. Box 29052
San Francisco, CA 94129-0052

Subject: **Soil Sampling Results**
**Asbestos Health and Safety Evaluation**
Presidio of San Francisco, California

Dear Mr. Ford:

Treadwell & Rollo, Inc. is pleased to transmit the results of asbestos characterization sampling to evaluate worker health and safety relating to asbestos occurring in native serpentine soil at the Presidio of San Francisco (Figure 1). The six sites where planned revegetation activities are proposed are located throughout the Presidio and include:

- Baker Beach Disturbed Areas 1 and 2 (Figure 2),
- Landfill 2 (Figure 3),
- Building 633 Firing Range (Figure 4),
- California Highway Patrol (CHP) Pistol Range (Figure 5), and
- Presidio Golf Course (Figure 6).

The soil sampling was conducted in general accordance with Treadwell & Rollo's *Asbestos Field Sampling Plan* dated 3 December 2003 and *Addendum* dated 8 March 2004.

The scope of services included:

- Identifying areas of serpentinite soil outcrops, based on field observations at the sites and proposing soil sample locations;
- Collecting a total of 43 shallow soil samples and submitting the samples for asbestos analysis;
- Evaluating the analytical results to identify where no asbestos was found and where asbestos is present at concentrations greater than 1 percent warranting a site-specific worker exposure assessment; and

DRAFT

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- Preparing this letter report.

## SOIL SAMPLING

Soil samples were collected to determine whether asbestos was present in serpentinite soil outcrops at the sites. On 9, 10 and 31 March 2004, Treadwell & Rollo collected a total of 43 primary and five duplicate shallow soil samples from locations approved by the Trust and the National Park Service (NPS)(Figures 2 through 6). Sample identification and collection were performed in general accordance with the *Presidio-wide Quality Assurance Project Plan and Sampling and Analysis Plan* (QAPP) (EMI Tetra Tech, 2001).

Site location identifiers used in the sample designation included:

- Baker Beach Disturbed Area 1 – BB1,
- Baker Beach Disturbed Area 2 – BB2,
- Landfill 2 - LF2,
- Building 633 Firing Range - 633,
- CHP Pistol Range - CHP, and
- Presidio Golf Course - PGC.

The sample designations refer to the sampling area, sample type, and the consecutive location number. For example, sample 633SS100 refers to the Building 633 Firing Range Area (633), shallow soil sample (SS), first sample location (100). To reduce the potential of confusion between previous soil samples collected from the BB1 and BB2 Areas and documented in *Draft Interim Data Report, Baker Beach Disturbed Areas 1, 1A, 2, and 2A* (MACTEC, 2003), the consecutive location number was started at the number 200.

The shallow soil samples were collected within the top 6 to 8 inches of soil using a stainless-steel hand shovel. To reduce the potential of cross-contaminating the sample locations, the shovel was washed with soapy water, rinsed with distilled water, and dried with disposable paper towels between each sample location.

Bulk soil samples were collected in labeled 1-gallon Zip-lock™ plastic bags. The soil was loosened with the hand shovel, placed in the plastic bag, the bag sealed and labeled. For quality control (QC) purposes, five duplicate soil samples were collected (approximately 10 percent of the total number of samples).

Following sample collection, soil not taken for analyses was placed back into the hole and lightly tamped to restore the surface. Horizontal coordinates for the sample locations were determined by Trust personnel using a Trimble Global Positioning System (GPS) unit.

A total of 48 soil samples (including duplicate samples) were submitted under chain-of-custody protocol to Micro Analytical Laboratories, Inc, a California-certified laboratory located in Emeryville, California. The samples were analyzed using Polarized Light Microscopy (PLM) methodologies following California Air Resources Board Method 435.

**RESULTS**

The soil asbestos analysis results are presented in Table 1 and on Figures 2 through 6. The analytical results indicate that asbestos was detected in samples from all sites except the CHP Pistol Range. The reported asbestos concentrations included:

- Baker Beach Disturbed Area 1 – Asbestos present in all eight samples at concentration ranging from <1 percent chrysotile [%] to 10%. Previous data indicated asbestos in one of two samples at 0.5%,
- Baker Beach Disturbed Area 2 – All 17 samples collected reported asbestos present at concentration ranging between 2% and 10%. Previous data indicated asbestos in one of three samples at 1%,
- Landfill 2 – Only one of seven samples collected contained asbestos (a concentration of 3%),
- Building 633 Firing Range - Low levels of asbestos (<1%), which would not require further action, were detected in three of the five samples collected, and
- Presidio Golf Course – Concentrations of asbestos range from <1% to 2% in five the six samples collected.

The laboratory analytical report for the soil samples is included as Attachment A. Data validation was not performed, as asbestos sampling is a physical property measurement that is not subject to analytical data validation methods.

With one exception, the results from the five pairs of primary and QC duplicate samples are consistent. One pair collected at Baker Beach Disturbed Area 2 reported 2% asbestos in the primary sample (BB2SS209) and 10% asbestos in the QC duplicate sample (DUP031004). The inconsistent results between these primary and duplicate samples are attributed to soil matrix non-homogeneity.

## CONCLUSIONS AND RECOMMENDATIONS

Natural occurring asbestos has been identified at five of the six sites tested. Based on these results and the previous exposure assessment performed at Fill Site 5, respiratory protection for workers involved in revegetation activities at CHP Pistol Range and Building 633 Firing Range is not required. However, because of the documented presence of asbestos at the Building 633 Firing Range site, the revegetation workers will require Asbestos Awareness Training. The reported asbestos levels at the four other sites (Baker Beach Disturbed Areas 1 and 2, Landfill 2, and the Presidio Golf Course) should be further assessed to evaluate whether asbestos in soil within the exposed serpentine outcrops could represent a health concern for plant restoration workers.

As presented in Treadwell & Rollo's proposal dated 10 November 2003, Treadwell & Rollo and RGA Environmental, Inc. (RGA) will perform an initial worker exposure assessment at each of these four sites. The exposure assessments will evaluate the potential airborne asbestos exposure for personnel conducting revegetation activities in the serpentine outcrop areas. The objective of the worker exposure assessments will be to collect air samples from the breathing zone during a typical plant restoration eight-hour workday. The initial exposure assessments will be performed at sample locations reporting the highest asbestos concentration. These areas represent the likely "worst-case" for exposure to asbestos. The proposed assessment locations and soil sample results are:

- Baker Beach Disturbed Area 1 – sample location BB1SS200 (10% chrysotile),
- Baker Beach Disturbed Area 2 – sample location DUP031004A (10% chrysotile),
- Landfill 2 – sample location LF2SS100 (3% chrysotile), and
- Presidio Golf Course - sample location PGCSS203 (2% chrysotile).

The initial exposure assessment will be performed by collecting personal, excursion, and perimeter air samples at the site. Two sampling personnel (Treadwell & Rollo and RGA employees certified for respirator use per Occupational Safety and Health Administration [OSHA] requirements), wearing respiratory protection and Tyvek$^{tm}$ clothing while onsite, will simulate typical activities for the plant restoration workers. The objective will be to reproduce conditions representative of revegetation planting activity that occurs in a typical eight-hour workday of actual worker onsite exposure. For example, the plant restoration activities may include an hour or two of mobilization time in a green house area, four hours of planting onsite, and two hours of demobilization activities. Activities conducted offsite are assumed to have zero asbestos exposure.

The personal air monitoring will be conducted using portable low volume sampling pumps set with a constant flow rate of 2.0 liters per minute (lpm) with a phase contrast microscopy (PCM) air sampling cassettes fitted with a 0.8 micron (25 mm) filter. The pumps will be operating over the time period that a typical worker would be onsite. The personal air samples are collected in the breathing zone of the workers and will be evaluated to estimate an eight-hour time-weighted average (TWA).

Two excursion air samples will be taken at the discretion of the field leader in order to represent worst-case scenario conditions of a volunteer during the eight-hour workday. The excursion samples are collected at a 30-minute interval when the most "at-risk" planting occurred i.e. when prevailing winds occur at the site of revegetation.

Two perimeter air samples will be collected as background samples. These sample collection locations are located in the upwind and downwind direction of the planting area.

All air samples collected will be transported to Micro Analytical Laboratories, Inc. under chain-of-custody protocol. The samples will be analyzed using Phase Contrast Microscopy (PCM) National Institute for Occupational Safety and Health (NIOSH) method 7400.

By simulating the exposure in the "worst-case" asbestos area, appropriate worker protection protocols can be developed. The personal and perimeter air samples will be compared to the permissible exposure limit (PEL) established by OSHA. The PEL is 0.1 fibers per cubic centimeter (f/cc) over the TWA. The excursion air samples will be compared to the short-term exposure limit (STEL) of 1.0 f/cc. The results of the air sampling will indicate the exposure limits relative to the PEL and STEL. The results of the personal monitoring and perimeter sampling will allow for the selection of engineering and/or administrative controls for site-specific use to protect workers safety.

Following completion of the air sampling, the results will be presented in an Exposure Assessment Letter Report that transmits results of the air sampling and summarizes the exposure assessment findings for each site. In order to confirm the initial exposure assessment results, confirmation asbestos air sampling will be performed during the first day of actual planting activities. The confirmation sampling will consist of personal monitoring sampling, excursion sampling, and perimeter sampling. The personal monitoring samplers will be worn by workers performing revegetation activities for an eight-hour period. Sample equipment and analyses will be the same as presented in the initial exposure sample outlined above.

A project-specific Health and Safety Plan (HSP) covering the Planting in Naturally Occurring Asbestos in Soil field activities has been prepared previously for the Trust by Treadwell & Rollo. Based on the results from the worker exposure assessments, site-specific HSP addendums will be

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prepared. The HSP addendums will include the potential health and safety risks associated with the field activities including the results of asbestos sampling, procedures for situations where unhealthy and/or unsafe conditions could occur, a description of the route to the nearest hospital and additional related items. The HSP must be read and signed by all field personnel prior to the start of field activities.

If you have any questions after reviewing this letter report, please contact us.

Sincerely yours,
TREADWELL & ROLLO, INC.

for

Steffen P. Steiner, CAC #92-0850
RGA Environmental, Inc.

Michael A. Chamberlain
Senior Project Geologist

Asbestos Letter Report.doc

Enclosures

Table 1 Soil Sample Results for Asbestos
Figure 1 Site location Map
Figure 2 Baker Beach Disturbed Areas 1 and 2 Asbestos Sample Locations
Figure 3 Landfill 2 Asbestos Sample Locations
Figure 4 Building 633 Firing Range 2 Asbestos Sample Locations
Figure 5 California Highway Patrol Pistol Range Asbestos Sample Locations
Figure 6 Presidio Golf Course Asbestos Sample Locations
Attachment A Soil Sample Laboratory Reports

# TABLES

# Table 1
## Soil Sample Results for Asbestos
## Asbestos Exposure Assessment at Six Sites
Presidio of San Francisco, California

| Location ID | Sample Date | Lithology | Asbestos[1], Chrysotile % By Volume |
|---|---|---|---|
| **Baker Beach Disturbed Area 1** | | | |
| BB1SS200 | 3/9/2004 | serpentine | 10 |
| BB1SS201 | 3/9/2004 | serpentine | 5 |
| BB1SS202 | 3/9/2004 | serpentine | 3 |
| BB1SS203 | 3/9/2004 | serpentine | < 1 |
| DUP030904A | 3/9/2004 | serpentine | < 1 |
| BB1SS204 | 3/9/2004 | serpentine | 2 |
| BB1SS205 | 3/9/2004 | serpentine | 3 |
| DUP030904B | 3/9/2004 | serpentine | 3 |
| *03BB1SB-107* | 7/30/2003 | -- | ND |
| *03BB1SB-109* | 7/30/2003 | -- | 0.5 |
| **Baker Beach Disturbed Area 2** | | | |
| BB2SS200 | 3/10/2004 | serpentine | 3 |
| BB2SS201 | 3/10/2004 | serpentine | 3 |
| BB2SS202 | 3/10/2004 | serpentine | 2 |
| BB2SS203 | 3/10/2004 | serpentine | 5 |
| BB2SS204 | 3/10/2004 | serpentine | 3 |
| BB2SS205 | 3/10/2004 | serpentine | 2 |
| BB2SS206 | 3/10/2004 | serpentine | 3 |
| BB2SS207 | 3/10/2004 | serpentine | 2 |
| BB2SS208 | 3/10/2004 | serpentine | 2 |
| BB2SS209 | 3/10/2004 | serpentine | 2 |
| DUP031004A | 3/10/2004 | serpentine | 10 |
| BB2SS210 | 3/31/2004 | serpentine | 2 |
| BB2SS211 | 3/31/2004 | serpentine | 2 |
| BB2SS212 | 3/31/2004 | serpentine | 2 |
| DUP033104A | 3/31/2004 | serpentine | 2 |
| BB2SS213 | 3/31/2004 | serpentine | 5 |
| BB2SS214 | 3/31/2004 | serpentine | 2 |
| *03BB2ASS-100* | 7/30/2003 | -- | ND |
| *03BB2ASS-102* | 7/30/2003 | -- | ND |
| *03BB2ASS-104* | 7/30/2003 | -- | 1 |
| **Landfill 2** | | | |
| LF2SS100 | 3/9/2004 | serpentine | 3 |
| LF2SS101 | 3/9/2004 | dune sand | ND |
| LF2SS102 | 3/9/2004 | dune sand | ND |
| LF2SS103 | 3/9/2004 | dune sand | ND |
| LF2SS104 | 3/9/2004 | dune sand | ND |
| LF2SS105 | 3/9/2004 | dune sand | ND |
| LF2SS106 | 3/9/2004 | soil w/ serpentine | ND |

# Table 1
## Soil Sample Results for Asbestos
## Asbestos Exposure Assessment at Six Sites
Presidio of San Francisco, California

| Location ID | Sample Date | Lithology | Asbestos[1], Chrysotile % By Volume |
|---|---|---|---|
| **Building 633 Firing Range** | | | |
| 633SS100 | 3/9/2004 | silty sandy soil | < 1 |
| 633SS101 | 3/9/2004 | silty sandy soil | ND |
| 633SS102 | 3/9/2004 | silty sandy soil | < 1 |
| 633SS103 | 3/9/2004 | silty sandy soil | ND |
| 633SS104 | 3/9/2004 | silty sandy soil | < 1 |
| **California Highway Patrol Pistol Range** | | | |
| CHPSS100 | 3/9/2004 | silty sandy soil | ND |
| CHPSS101 | 3/9/2004 | silty sandy soil | ND |
| CHPSS102 | 3/9/2004 | silty sandy soil | ND |
| CHPSS103 | 3/9/2004 | silty sandy soil | ND |
| CHPSS104 | 3/9/2004 | silty sandy soil | ND |
| **Presidio Golf Course** | | | |
| PGCSS200 | 3/10/2004 | silty sandy soil | 2 |
| PGCSS201 | 3/10/2004 | silty sandy soil | < 1 |
| PGCSS202 | 3/10/2004 | serpentine soil | < 1 |
| PGCSS203 | 3/10/2004 | serpentine soil | 2 |
| DUP031004B | 3/10/2004 | serpentine soil | 2 |
| PGCSS204 | 3/10/2004 | silty sandy soil | ND |

Notes

[1] Bulk asbestos analysis using Polarized Light Microscopy (PLM) following California Air Resources Board Method 435

DUP - Prefix indicates quality control duplicate sample.

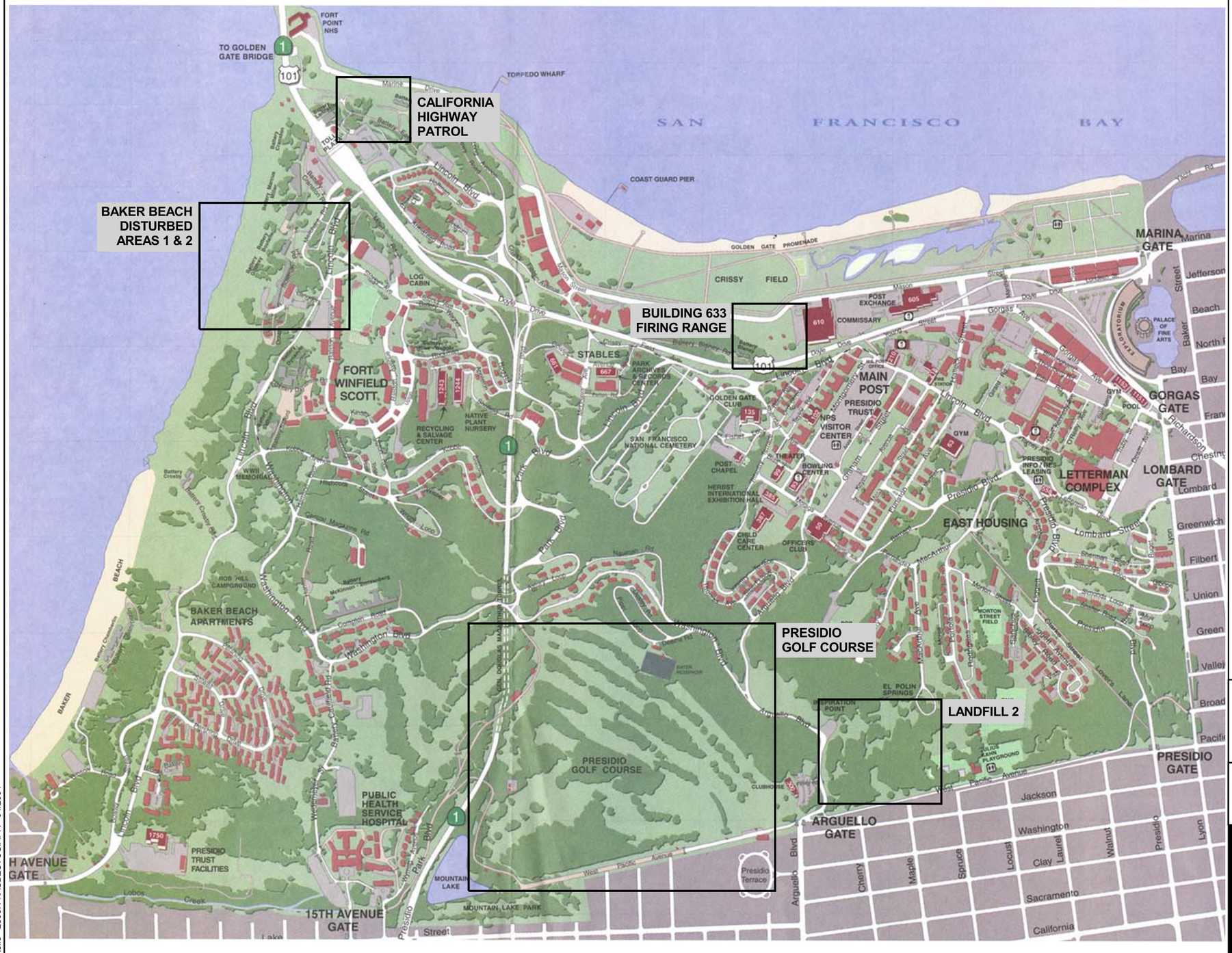
*03BB2ASS-102* - Italicized sample number indicates existing data, *Draft Interim Data Report, Baker Beach Disturbed Areas 1, 1A, 2, and 2A* (MACTEC, 20(

ND - not detected

-- data unknown or unavailable

All samples collected from surface soil at depths between 6 and 8-inches.

# FIGURES



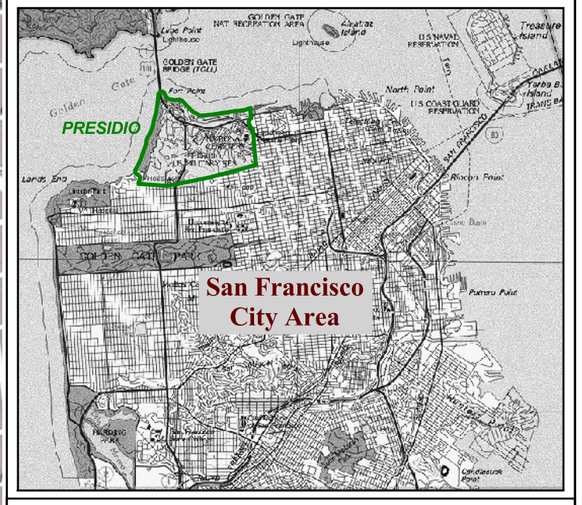

N

DRAFT

1000 0 1000 Feet

**LEGEND**

Area Depicted on Figures




**SITE LOCATION MAP**

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THE PRESIDIO TRUST

Presidio Trust
34 Graham Street
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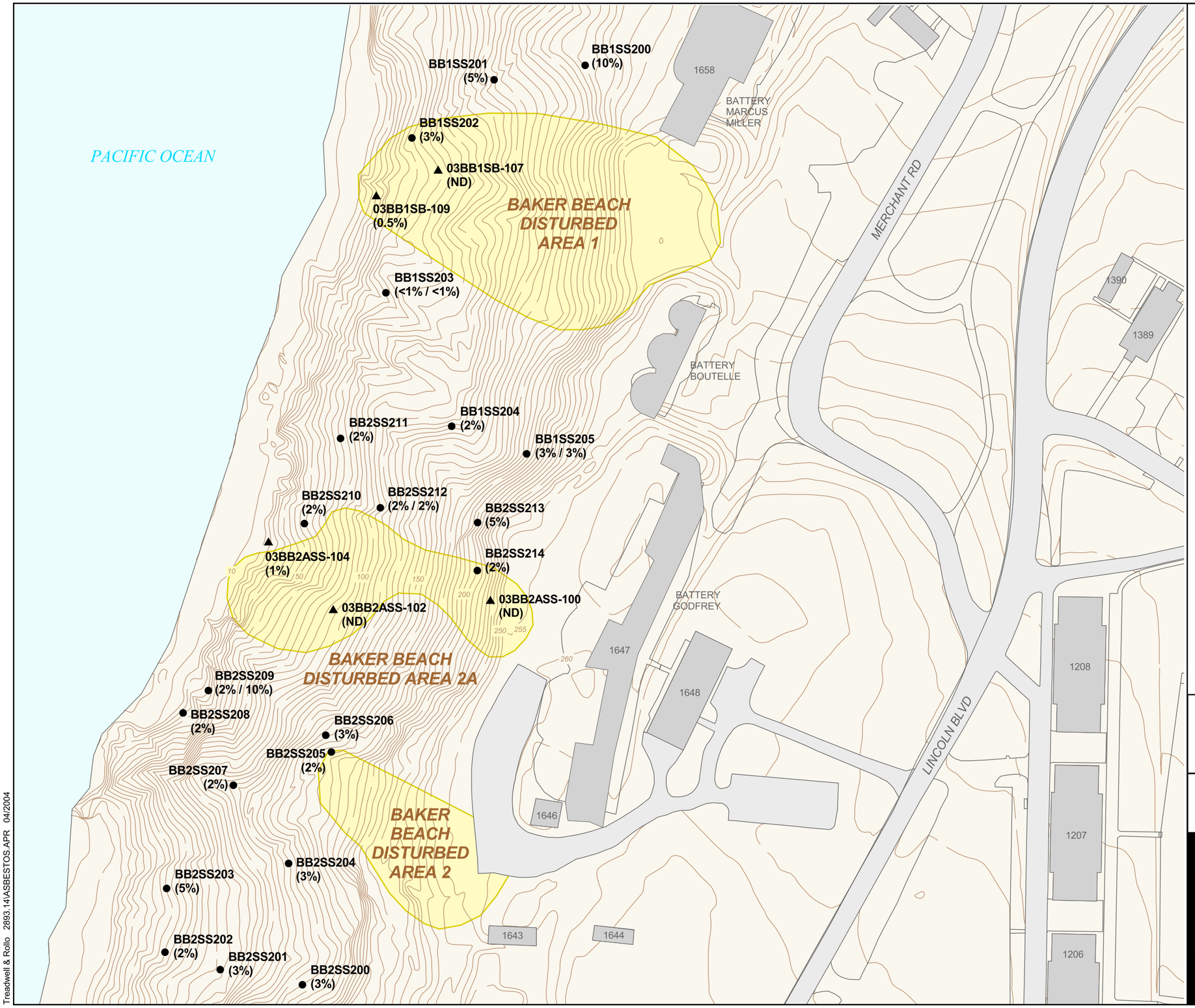
415/561-5300
fax 415/561-5315

April 2004

FIGURE 1

Treadwell & Rollo 2893.14\ASBESTOS.APR 04/2004




N

DRAFT

120 0 120 Feet

## LEGEND

| | |
|---|---|
| ● BB1SS203 (<1% / <1%) | 2004 Asbestos Soil Sampling Location (percent chrysotile / duplicate sample) |
| ▲ 03BB2ASS-104 (1%) | 2003 Asbestos Soil Sample Location (percent chrysotile) |
| (ND) | Not Detected |
| | Topographic Contour (Contour Interval : 5 ft) |
| | Presidio Base map |
| | Approximate Lateral Extent of Landfill |
| | Building |

Notes:
2003 Asbestos Results from Draft Interim Data Report, Baker Beach Disturbed Areas 1, 1A, 2 and 2A, MACTEC, 19 November 2003.

Landfill outlines are approximate.

Base map provided by the Presidio Trust in June 2003.

Horizontal Datum: NAD 27, CA State Plane Coordinates, Zone 3, feet

Vertical Datum (topography): North American Vertical Datum, NAVD88

**BAKER BEACH DISTURBED AREAS 1 AND 2 ASBESTOS SAMPLING LOCATIONS**

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THE PRESIDIO TRUST


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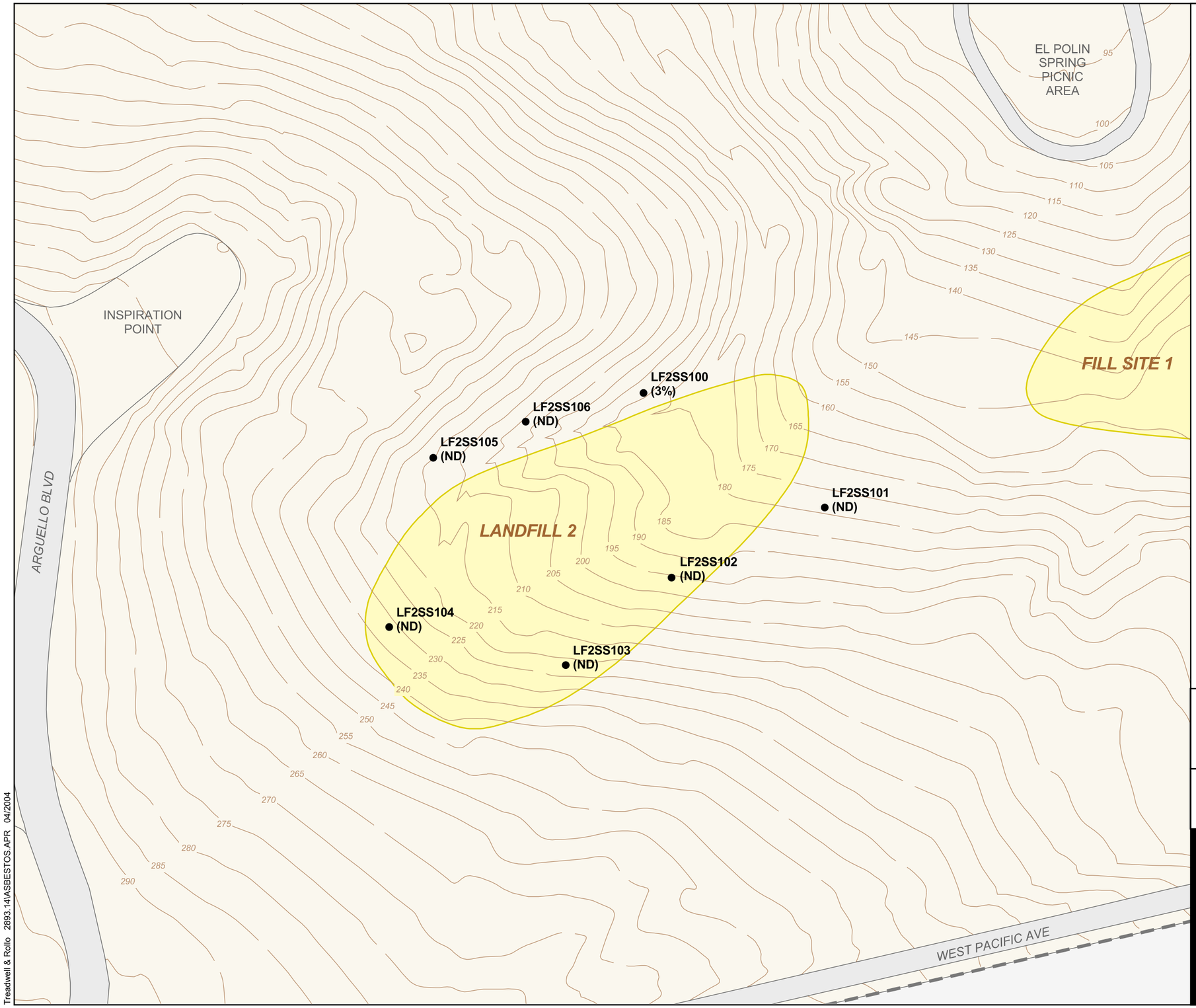
April 2004

FIGURE 2

Treadwell & Rollo 2893.14\ASBESTOS.APR 04/2004




N

DRAFT

100 0 100 Feet

**LEGEND**

| | |
|---|---|
| ● **LF2SS100 (3%)** | 2004 Asbestos Soil Sampling Location (percent chrysotile) |
| **(ND)** | Not Detected |
| | Presidio Boundary |
| | Presidio Basemap |
| | Topographic Contour (Contour Interval : 5 ft) |
| | Approximate Lateral Extent of Landfill |

Notes:

Landfill outlines are approximate.

Base map provided by the Presidio Trust in June 2003.

Horizontal Datum: NAD 27, CA State Plane Coordinates, Zone 3, feet

**LANDFILL 2**
**ASBESTOS SAMPLING LOCATIONS**

Treadwell&Rollo

THE PRESIDIO TRUST

Presidio Trust
34 Graham Street
P.O. Box 29052
San Francisco, CA
94129-0052
415/561-5300
fax 415/561-5315

April 2004

FIGURE 3

Treadwell & Rollo 2893.14\ASBESTOS.APR 04/2004


N

DRAFT

60 0 60 Feet

## LEGEND

- **633SS100 (<1%)** 2004 Asbestos Soil Sampling Location (percent chrysotile)
- **(ND)** Not Detected
- Firing Range Boundary from Revised Feasibility Study, Main Installation Sites, EKI 2003
- Fence Boundary
- Presidio Basemap
- Topographic Contours (Contour Interval : 1 ft)
- Former Above Ground Storage Tank
- Sensitive Vegetation (NPS, 2001a)
- 633 Building and Number

Notes:
Base map provided by the Presidio Trust in June 2003.

Horizontal Datum: NAD 27, CA State Plane Coordinates, Zone 3, feet

**BUILDING 633 FIRING RANGE**
**ASBESTOS SAMPLING LOCATIONS**

Treadwell&Rollo

THE PRESIDIO TRUST

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34 Graham Street
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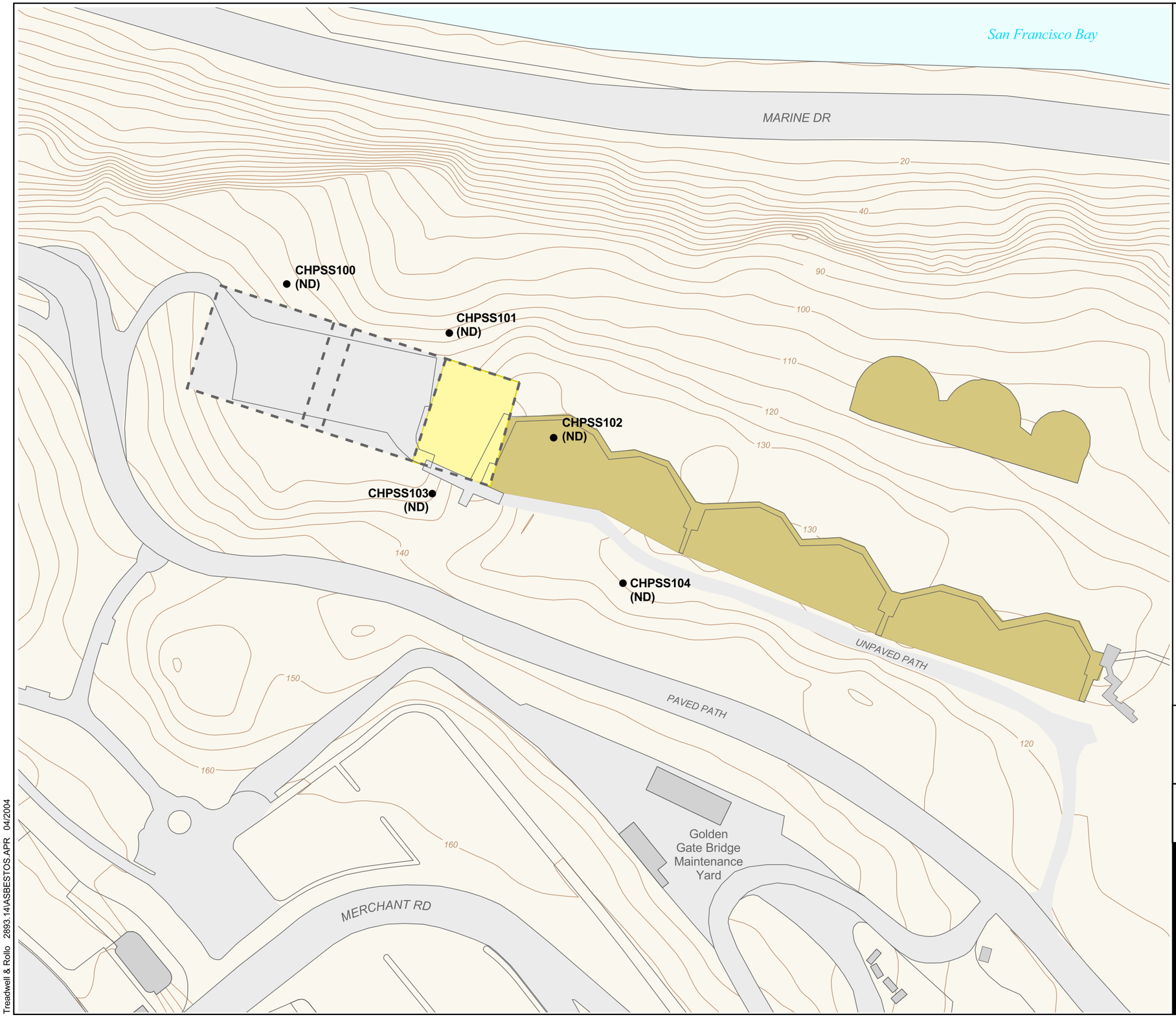
San Francisco, CA
94129-0052
415/561-5300
fax 415/561-5315

April 2004

FIGURE 4

Treadwell & Rollo 2893.14ASBESTOS.APR 04/2004




N

DRAFT

60 0 60 Feet

**LEGEND**

- **CHPSS100 (ND)** 2004 Asbestos Soil Sampling Location (percent chrysotile)
- **(ND)** Not Detected
- Firing Range Boundary from Montgomery Watson 1997 SI
- Presidio Basemap
- Topographic Contours (Contour Interval : 5 ft)
- Battery Portions Used as Backstop
- Gun Battery East
- Building

Notes:
Base map provided by the Presidio Trust in June 2003.

Horizontal Datum: NAD 27, CA State Plane Coordinates, Zone 3, feet

**CALIFORNIA HIGHWAY PATROL**
**PISTOL RANGE**
**ASBESTOS SAMPLING LOCATIONS**

**Treadwell&Rollo**

THE PRESIDIO TRUST

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34 Graham Street
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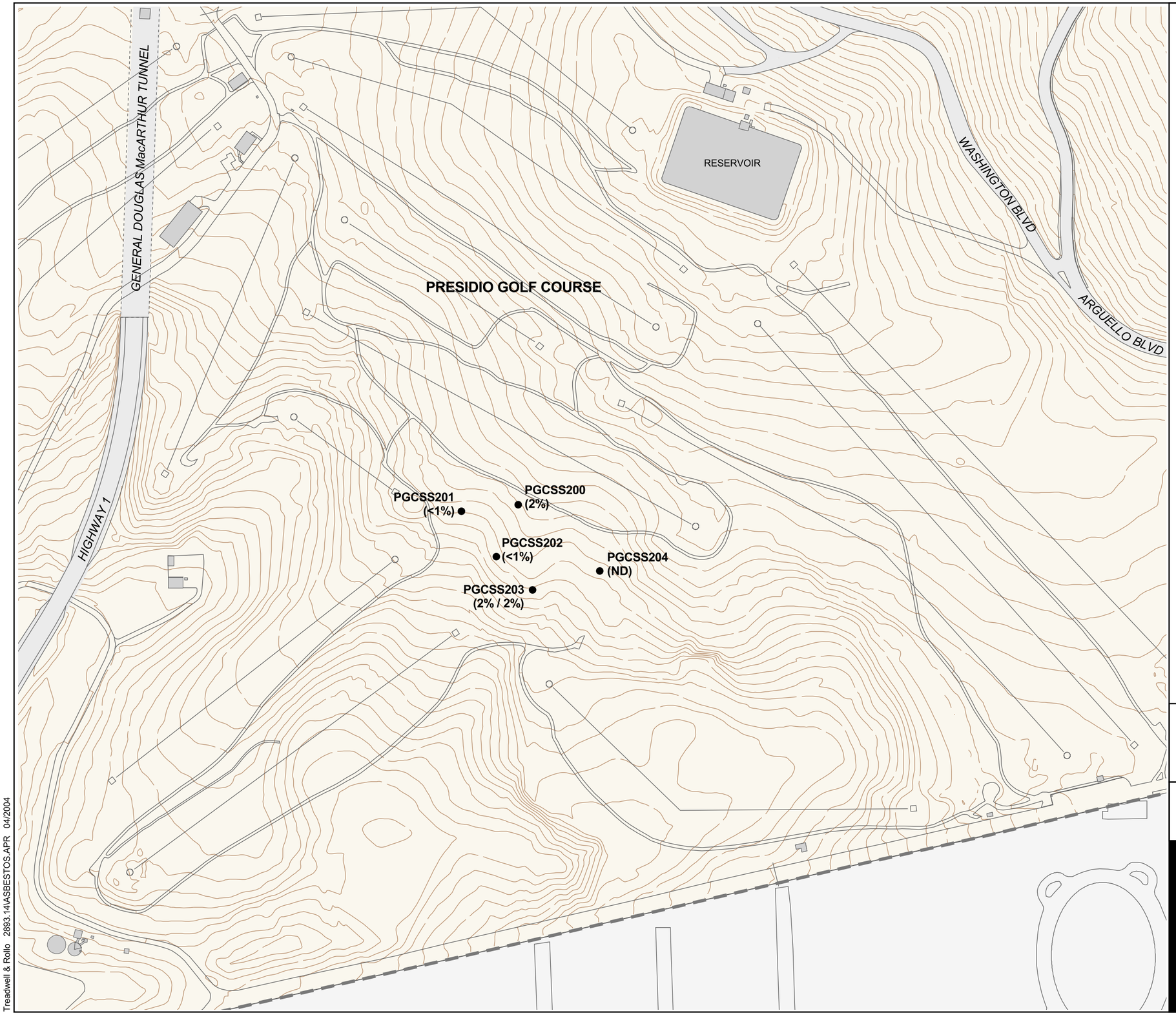
94129-0052
415/561-5300
fax 415/561-5315

April 2004

FIGURE 5

Treadwell & Rollo 2893.14ASBESTOS.APR 04/2004




N

DRAFT

250 0 250 Feet

## LEGEND

- **PGCSS200 (2%)** — 2004 Asbestos Soil Sampling Location (percent chrysotile / duplicate sample)
- **(ND)** — Not Detected
- Presidio Boundary
- Presidio Basemap
- Topographic Contours (Contour Interval : 5 ft)
- Building

Notes:
Base map provided by the Presidio Trust in June 2003.

Horizontal Datum: NAD 27, CA State Plane Coordinates, Zone 3, feet

Vertical Datum (topography): North American Vertical Datum, NAVD88

**PRESIDIO GOLF COURSE**
**ASBESTOS SAMPLING LOCATIONS**

Treadwell&Rollo

THE PRESIDIO TRUST

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415/561-5300
fax 415/561-5315

April 2004

FIGURE 6

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# MICRO ANALYTICAL LABORATORIES, INC.



BULK ASBESTOS ANALYSIS - PLM SOIL

TREADWELL & ROLLO
1039

Treadwell & Rollo
555 Montgomery Street, Ste 1300
San Francisco, CA 94111

PROJECT:
**PRESIDIO ASBESTOS SURVEY**
**JOB NO. 2893.14**

Micro Log In **56217**
Total Samples 42
Date Sampled 03/09/2004
Date Received 03/12/2004
Date Analyzed 03/16/2004

| SAMPLE INFORMATION | ASBESTOS INFORMATION<br>QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES | DOMINANT OTHER MATERIALS |
|---|---|---|
| Client: LF2SS100<br>Micro: 56217-01 Analyst: BK<br>SOIL TESTING | 3% CHRYSOTILE | ROCK FRAGMENTS<br>SERPENTINE |
| Client: LF2SS106<br>Micro: 56217-02 Analyst: BK<br>SOIL TESTING | NONE DETECTED | ROCK FRAGMENTS<br>OPAQUES |
| Client: LF2SS105<br>Micro: 56217-03 Analyst: BK<br>SOIL TESTING | NONE DETECTED | ROCK FRAGMENTS<br>OPAQUES |
| Client: LF2SS101<br>Micro: 56217-04 Analyst: BK<br>SOIL TESTING | NONE DETECTED | ROCK FRAGMENTS<br>OPAQUES |
| Client: LF2SS102<br>Micro: 56217-05 Analyst: BK<br>SOIL TESTING | NONE DETECTED | ROCK FRAGMENTS<br>OPAQUES |

Technical Supervisor: for Baojia Ke, Ph. D. 3/16/2004 Date Reported

NOTES: Weight % cannot be determined by PLM estimation or point counts. Asbestos fibers with diameter below ~1 mm may not be detected by PLM. The absence of asbestos in dust or debris (including wipe or microvacuum), and in some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM). Only dominant non-asbestos materials are indicated. This report must not be interpreted as a conclusive identification of non-asbestos (fibrous or not). Preparation (all samples): grinding, milling; teasing bundles apart; drying, if needed, by hotplate. Acid dissolution, ashing, or other matrix reduction techniques may be applied to some samples; residue asbestos % is corrected for amount of matrix removed. Various sample interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties. Notes are made if point counting is used; otherwise, asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (<<1%) may not be reliable or reproducible by PLM. Lower quantitation limit (reporting limit) of PLM estimation is 1%. The 95% UCL and LCL (Upper and Lower Confidence Limits) represent the highest and lowest expected concentrations for an asbestos point count, based on reported concentration and Poisson statistics. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos by weight; however, reliable determination of asbestos weight percent at this level cannot be done by PLM, and TEM is recommended. Layers of heterogeneous samples are analyzed separately; asbestos percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. Composite asbestos percentages on multilayered samples are applicable only to layered wall systems (wallboard, joint compound, and related materials); compositing is based on clients' descriptions of a material as "joint compound". Clients are solely responsible for identification and description of bulk materials listed on field forms. Laboratory sample descriptions may differ from descriptions given by the client. *Quality Control (QC) Codes: A = results confirmed (within acceptance limits); B = no asbestos detected in lab blank (SRM 1866a Fibrous Glass or equivalent); R = all materials confirmed after multiple result resolutions. NIST / NVLAP Accreditation Lab Code: #101872-0. California ELAP Certification #1037. EPA test method is based on the EPA Interim Method (1982), with several improvements in analytical techniques. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report must not be reproduced except in full, with approval of Micro Analytical Laboratories.

# MICRO ANALYTICAL LABORATORIES, INC.



**BULK ASBESTOS ANALYSIS - PLM SOIL**

1039

Treadwell & Rollo
555 Montgomery Street, Ste 1300
San Francisco, CA 94111

PROJECT:
**PRESIDIO ASBESTOS SURVEY**
**JOB NO. 2893.14**

Micro Log In **56217**
Total Samples 42
Date Sampled 03/09/2004
Date Received 03/12/2004
Date Analyzed 03/16/2004

| SAMPLE INFORMATION | ASBESTOS INFORMATION<br>QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES | DOMINANT OTHER MATERIALS |
|---|---|---|
| Client: LF2SS103<br>Micro: 56217-06 Analyst: BK<br>SOIL TESTING | NONE DETECTED | ROCK FRAGMENTS<br>OPAQUES |
| Client: LF2SS104<br>Micro: 56217-07 Analyst: BK<br>SOIL TESTING | NONE DETECTED | ROCK FRAGMENTS<br>OPAQUES |
| Client: CHPSS100<br>Micro: 56217-08 Analyst: BK<br>SOIL TESTING | NONE DETECTED | ROCK FRAGMENTS<br>OPAQUES |
| Client: CHPSS101<br>Micro: 56217-09 Analyst: BK<br>SOIL TESTING | NONE DETECTED | ROCK FRAGMENTS<br>OPAQUES |
| Client: CHPSS103<br>Micro: 56217-10 Analyst: BK<br>SOIL TESTING | NONE DETECTED | ROCK FRAGMENTS<br>OPAQUES |

Technical Supervisor: for Baojia Ke, Ph. D. 3/16/2004 Date Reported

NOTES: Weight % cannot be determined by PLM estimation or point counts. Asbestos fibers with diameter below ~1 mm may not be detected by PLM. The absence of asbestos in dust or debris (including wipe or microvacuum), and in some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM). Only dominant non-asbestos materials are indicated. This report must not be interpreted as a conclusive identification of non-asbestos (fibrous or not). Preparation (all samples): grinding, milling; teasing bundles apart; drying, if needed, by hotplate. Acid dissolution, ashing, or other matrix reduction techniques may be applied to some samples; residue asbestos % is corrected for amount of matrix removed. Various sample interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties. Notes are made if point counting is used; otherwise, asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (<<1%) may not be reliable or reproducible by PLM. Lower quantitation limit (reporting limit) of PLM estimation is 1%. The 95% UCL and LCL (Upper and Lower Confidence Limits) represent the highest and lowest expected concentrations for an asbestos point count, based on reported concentration and Poisson statistics. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos by weight; however, reliable determination of asbestos weight percent at this level cannot be done by PLM, and TEM is recommended. Layers of heterogeneous samples are analyzed separately; asbestos percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. Composite asbestos percentages on multilayered samples are applicable only to layered wall systems (wallboard, joint compound, and related materials); compositing is based on clients' descriptions of a material as "joint compound". Clients are solely responsible for identification and description of bulk materials listed on field forms. Laboratory sample descriptions may differ from descriptions given by the client. *Quality Control (QC) Codes: A = results confirmed (within acceptance limits); B = no asbestos detected in lab blank (SRM 1866a Fibrous Glass or equivalent); R = all materials confirmed after multiple result resolutions. NIST / NVLAP Accreditation Lab Code: #101872-0. California ELAP Certification #1037. EPA test method is based on the EPA Interim Method (1982), with several improvements in analytical techniques. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report must not be reproduced except in full, with approval of Micro Analytical Laboratories.

# MICRO ANALYTICAL LABORATORIES, INC.

## BULK ASBESTOS ANALYSIS - PLM SOIL

1039

Treadwell & Rollo
555 Montgomery Street, Ste 1300
San Francisco, CA 94111

PROJECT:
**PRESIDIO ASBESTOS SURVEY**
**JOB NO. 2893.14**

Micro Log In **56217**
Total Samples 42
Date Sampled 03/09/2004
Date Received 03/12/2004
Date Analyzed 03/16/2004

| SAMPLE INFORMATION | ASBESTOS INFORMATION<br>QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES | DOMINANT OTHER MATERIALS |
|---|---|---|
| Client: CHPSS102<br>Micro: 56217-11 Analyst: BK<br>SOIL TESTING | NONE DETECTED | ROCK FRAGMENTS<br>OPAQUES |
| Client: CHPSS104<br>Micro: 56217-12 Analyst: BK<br>SOIL TESTING | NONE DETECTED | ROCK FRAGMENTS<br>OPAQUES |
| Client: BB1SS200<br>Micro: 56217-13 Analyst: BK<br>SOIL TESTING | 10% CHRYSOTILE | ROCK FRAGMENTS<br>SERPENTINE |
| Client: BB1SS201<br>Micro: 56217-14 Analyst: BK<br>SOIL TESTING | 5% CHRYSOTILE | ROCK FRAGMENTS<br>SERPENTINE |
| Client: BB1SS202<br>Micro: 56217-15 Analyst: BK<br>SOIL TESTING | 3% CHRYSOTILE | ROCK FRAGMENTS<br>SERPENTINE |

Technical Supervisor: for Baojia Ke, Ph. D. 3/17/2004 Date Reported

NOTES: Weight % cannot be determined by PLM estimation or point counts. Asbestos fibers with diameter below ~1 mm may not be detected by PLM. The absence of asbestos in dust or debris (including wipe or microvacuum), and in some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM). Only dominant non-asbestos materials are indicated. This report must not be interpreted as a conclusive identification of non-asbestos (fibrous or not). Preparation (all samples): grinding, milling; teasing bundles apart; drying, if needed, by hotplate. Acid dissolution, ashing, or other matrix reduction techniques may be applied to some samples; residue asbestos % is corrected for amount of matrix removed. Various sample interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties. Notes are made if point counting is used; otherwise, asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (<<1%) may not be reliable or reproducible by PLM. Lower quantitation limit (reporting limit) of PLM estimation is 1%. The 95% UCL and LCL (Upper and Lower Confidence Limits) represent the highest and lowest expected concentrations for an asbestos point count, based on reported concentration and Poisson statistics. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos by weight; however, reliable determination of asbestos weight percent at this level cannot be done by PLM, and TEM is recommended. Layers of heterogeneous samples are analyzed separately; asbestos percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. Composite asbestos percentages on multilayered samples are applicable only to layered wall systems (wallboard, joint compound, and related materials); compositing is based on clients' descriptions of a material as "joint compound". Clients are solely responsible for identification and description of bulk materials listed on field forms. Laboratory sample descriptions may differ from descriptions given by the client. *Quality Control (QC) Codes: A = results confirmed (within acceptance limits); B – no asbestos detected in lab blank (SRM 1866a Fibrous Glass or equivalent); R = all materials confirmed after multiple result resolutions. NIST / NVLAP Accreditation Lab Code: #101872-0. California ELAP Certification #1037. EPA test method is based on the EPA Interim Method (1982), with several improvements in analytical techniques. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report must not be reproduced except in full, with approval of Micro Analytical Laboratories.

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## BULK ASBESTOS ANALYSIS - PLM SOIL

1039

Treadwell & Rollo
555 Montgomery Street, Ste 1300
San Francisco, CA 94111

PROJECT:
**PRESIDIO ASBESTOS SURVEY**
**JOB NO. 2893.14**

Micro Log In **56217**
Total Samples 42
Date Sampled 03/09/2004
Date Received 03/12/2004
Date Analyzed 03/16/2004

| SAMPLE INFORMATION | ASBESTOS INFORMATION<br>QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES | DOMINANT OTHER MATERIALS |
|---|---|---|
| Client: BB1SS203<br>Micro: 56217-16 Analyst: GR<br>SOIL TESTING | <1% CHRYSOTILE | ROCK FRAGMENTS<br>CLAY<br>SERPENTINE |
| Client: DUP030904A<br>Micro: 56217-17 Analyst: GR<br>SOIL TESTING | <1% CHRYSOTILE | ROCK FRAGMENTS<br>CLAY<br>SERPENTINE |
| Client: BB1SS204<br>Micro: 56217-18 Analyst: GR AF<br>SOIL TESTING | QC*: R<br>2% CHRYSOTILE | 5 % CELLULOSE<br>ROCK FRAGMENTS<br>CLAY<br>SERPENTINE |
| Client: BB1SS205<br>Micro: 56217-19 Analyst: GR<br>SOIL TESTING | 3% CHRYSOTILE | ROCK FRAGMENTS<br>OPAQUES<br>SERPENTINE |
| Client: DUP030904B<br>Micro: 56217-20 Analyst: GR<br>SOIL TESTING | 3% CHRYSOTILE | ROCK FRAGMENTS<br>OPAQUES<br>SERPENTINE |

Technical Supervisor: _____ 3/16/2004
Baojia Ke, Ph. D. Date Reported

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**BULK ASBESTOS ANALYSIS - PLM SOIL**

1039

Treadwell & Rollo
555 Montgomery Street, Ste 1300
San Francisco, CA 94111

PROJECT:
**PRESIDIO ASBESTOS SURVEY**
**JOB NO. 2893.14**

Micro Log In **56217**
Total Samples 42
Date Sampled 03/09/2004
Date Received 03/12/2004
Date Analyzed 03/16/2004

| SAMPLE INFORMATION | ASBESTOS INFORMATION<br>QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES | DOMINANT OTHER MATERIALS |
|---|---|---|
| Client: 633SS100<br>Micro: 56217-21 Analyst: GR<br>SOIL TESTING | <1% CHRYSOTILE | ROCK FRAGMENTS<br>OPAQUES<br>CLAY |
| Client: 633SS101<br>Micro: 56217-22 Analyst: GR<br>SOIL TESTING | NONE DETECTED | ROCK FRAGMENTS<br>OPAQUES<br>CLAY |
| Client: 633SS102<br>Micro: 56217-23 Analyst: GR<br>SOIL TESTING | <1% CHRYSOTILE | ROCK FRAGMENTS<br>OPAQUES<br>CLAY |
| Client: 633SS103<br>Micro: 56217-24 Analyst: GR<br>SOIL TESTING | NONE DETECTED | ROCK FRAGMENTS<br>OPAQUES<br>CLAY |
| Client: 633SS104<br>Micro: 56217-25 Analyst: GR<br>SOIL TESTING | <1% CHRYSOTILE | ROCK FRAGMENTS<br>OPAQUES<br>CLAY |

Technical Supervisor, for Baojia Ke, Ph. D. 3/16/2004 Date Reported

NOTES: Weight % cannot be determined by PLM estimation or point counts. Asbestos fibers with diameter below ~1 mm may not be detected by PLM. The absence of asbestos in dust or debris (including wipe or microvacuum), and in some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM). Only dominant non-asbestos materials are indicated. This report must not be interpreted as a conclusive identification of non-asbestos (fibrous or not). Preparation (all samples): grinding, milling; teasing bundles apart; drying, if needed, by hotplate. Acid dissolution, ashing, or other matrix reduction techniques may be applied to some samples; residue asbestos % is corrected for amount of matrix removed. Various sample interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties. Notes are made if point counting is used; otherwise, asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (<<1%) may not be reliable or reproducible by PLM. Lower quantitation limit (reporting limit) of PLM estimation is 1%. The 95% UCL and LCL (Upper and Lower Confidence Limits) represent the highest and lowest expected concentrations for an asbestos point count, based on reported concentration and Poisson statistics. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos by weight; however, reliable determination of asbestos weight percent at this level cannot be done by PLM, and TEM is recommended. Layers of heterogeneous samples are analyzed separately; asbestos percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. Composite asbestos percentages on multilayered samples are applicable only to layered wall systems (wallboard, joint compound, and related materials); compositing is based on clients' descriptions of a material as "joint compound". Clients are solely responsible for identification and description of bulk materials listed on field forms. Laboratory sample descriptions may differ from descriptions given by the client. *Quality Control (QC) Codes: A = results confirmed (within acceptance limits); B = no asbestos detected in lab blank (SRM 1866a Fibrous Glass or equivalent); R = all materials confirmed after multiple result resolutions. NIST / NVLAP Accreditation Lab Code: #101872-0. California ELAP Certification #1037. EPA test method is based on the EPA Interim Method (1982), with several improvements in analytical techniques. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report must not be reproduced except in full, with approval of Micro Analytical Laboratories.

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**BULK ASBESTOS ANALYSIS - PLM SOIL**

1039

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555 Montgomery Street, Ste 1300
San Francisco, CA 94111

PROJECT:
**PRESIDIO ASBESTOS SURVEY**
**JOB NO. 2893.14**

Micro Log In **56217**
Total Samples 42
Date Sampled 03/10/2004
Date Received 03/12/2004
Date Analyzed 03/16/2004

| SAMPLE INFORMATION | ASBESTOS INFORMATION<br>QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES | DOMINANT OTHER MATERIALS |
|---|---|---|
| Client: **BB2SS204**<br>Micro: 56217-26 Analyst: MG<br>SOIL TESTING | **3% CHRYSOTILE** | ROCK FRAGMENTS<br>OPAQUES<br>SERPENTINE |
| Client: **BB2SS203**<br>Micro: 56217-27 Analyst: MG<br>SOIL TESTING | **5% CHRYSOTILE** | ROCK FRAGMENTS<br>OPAQUES<br>SERPENTINE |
| Client: **BB2SS202**<br>Micro: 56217-28 Analyst: MG<br>SOIL TESTING | **2% CHRYSOTILE** | ROCK FRAGMENTS<br>OPAQUES<br>SERPENTINE |
| Client: **BB2SS201**<br>Micro: 56217-29 Analyst: MG<br>SOIL TESTING | **3% CHRYSOTILE** | ROCK FRAGMENTS<br>OPAQUES<br>SERPENTINE |
| Client: **BB2SS200**<br>Micro: 56217-30 Analyst: MG<br>SOIL TESTING | **3% CHRYSOTILE** | ROCK FRAGMENTS<br>OPAQUES<br>SERPENTINE |

Technical Supervisor: for: Baojia Ke, Ph. D. 3/16/2004 Date Reported

NOTES: Weight % cannot be determined by PLM estimation or point counts. Asbestos fibers with diameter below ~1 mm may not be detected by PLM. The absence of asbestos in dust or debris (including wipe or microvacuum), and in some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM). Only dominant non-asbestos materials are indicated. This report must not be interpreted as a conclusive identification of non-asbestos (fibrous or not). Preparation (all samples): grinding, milling; teasing bundles apart; drying, if needed, by hotplate. Acid dissolution, ashing, or other matrix reduction techniques may be applied to some samples; residue asbestos % is corrected for amount of matrix removed. Various sample interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties. Notes are made if point counting is used; otherwise, asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (<<1%) may not be reliable or reproducible by PLM. Lower quantitation limit (reporting limit) of PLM estimation is 1%. The 95% UCL and LCL (Upper and Lower Confidence Limits) represent the highest and lowest expected concentrations for an asbestos point count, based on reported concentration and Poisson statistics. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos by weight; however, reliable determination of asbestos weight percent at this level cannot be done by PLM, and TEM is recommended. Layers of heterogeneous samples are analyzed separately; asbestos percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. Composite asbestos percentages on multilayered samples are applicable only to layered wall systems (wallboard, joint compound, and related materials); compositing is based on clients' descriptions of a material as "joint compound". Clients are solely responsible for identification and description of bulk materials listed on field forms. Laboratory sample descriptions may differ from descriptions given by the client. *Quality Control (QC) Codes: A = results confirmed (within acceptance limits); B = no asbestos detected in lab blank (SRM 1866a Fibrous Glass or equivalent); R = all materials confirmed after multiple result resolutions. NIST / NVLAP Accreditation Lab Code: #101872-0. California ELAP Certification #1037. EPA test method is based on the EPA Interim Method (1982), with several improvements in analytical techniques. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report must not be reproduced except in full, with approval of Micro Analytical Laboratories.

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**BULK ASBESTOS ANALYSIS - PLM SOIL**

1039

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San Francisco, CA 94111

PROJECT:
**PRESIDIO ASBESTOS SURVEY**
**JOB NO. 2893.14**

Micro Log In **56217**
Total Samples 42
Date Sampled 03/10/2004
Date Received 03/12/2004
Date Analyzed 03/16/2004

| SAMPLE INFORMATION | ASBESTOS INFORMATION<br>QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES | DOMINANT OTHER MATERIALS |
|---|---|---|
| Client: **BB2SS205**<br>Micro: 56217-31 Analyst: MG<br>SOIL TESTING | **2% CHRYSOTILE** | ROCK FRAGMENTS<br>OPAQUES<br>SERPENTINE |
| Client: **BB2SS206**<br>Micro: 56217-32 Analyst: MG<br>SOIL TESTING | **3% CHRYSOTILE** | ROCK FRAGMENTS<br>OPAQUES<br>SERPENTINE |
| Client: **BB2SS207**<br>Micro: 56217-33 Analyst: MG<br>SOIL TESTING | **2% CHRYSOTILE** | ROCK FRAGMENTS<br>OPAQUES<br>SERPENTINE, |
| Client: **BB2SS208**<br>Micro: 56217-34 Analyst: MG<br>SOIL TESTING | **2% CHRYSOTILE** | ROCK FRAGMENTS<br>OPAQUES<br>SERPENTINE |
| Client: **BB2SS209**<br>Micro: 56217-35 Analyst: MG<br>SOIL TESTING | **2% CHRYSOTILE** | ROCK FRAGMENTS<br>OPAQUES<br>SERPENTINE |

Technical Supervisor: for: Baojia Ke, Ph. D. 3/16/2004 Date Reported

NOTES: Weight % cannot be determined by PLM estimation or point counts. Asbestos fibers with diameter below ~1 mm may not be detected by PLM. The absence of asbestos in dust or debris (including wipe or microvacuum), and in some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM). Only dominant non-asbestos materials are indicated. This report must not be interpreted as a conclusive identification of non-asbestos (fibrous or not). Preparation (all samples): grinding, milling; teasing bundles apart; drying, if needed, by hotplate. Acid dissolution, ashing, or other matrix reduction techniques may be applied to some samples; residue asbestos % is corrected for amount of matrix removed. Various sample interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties. Notes are made if point counting is used; otherwise, asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (<<1%) may not be reliable or reproducible by PLM. Lower quantitation limit (reporting limit) of PLM estimation is 1%. The 95% UCL and LCL (Upper and Lower Confidence Limits) represent the highest and lowest expected concentrations for an asbestos point count, based on reported concentration and Poisson statistics. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos by weight; however, reliable determination of asbestos weight percent at this level cannot be done by PLM, and TEM is recommended. Layers of heterogeneous samples are analyzed separately; asbestos percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. Composite asbestos percentages on multilayered samples are applicable only to layered wall systems (wallboard, joint compound, and related materials); compositing is based on clients' descriptions of a material as "joint compound". Clients are solely responsible for identification and description of bulk materials listed on field forms. Laboratory sample descriptions may differ from descriptions given by the client. *Quality Control (QC) Codes: A = results confirmed (within acceptance limits); B = no asbestos detected in lab blank (SRM 1866a Fibrous Glass or equivalent); R = all materials confirmed after multiple result resolutions. NIST / NVLAP Accreditation Lab Code: #101872-0. California ELAP Certification #1037. EPA test method is based on the EPA Interim Method (1982), with several improvements in analytical techniques. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report must not be reproduced except in full, with approval of Micro Analytical Laboratories.

# MICRO ANALYTICAL LABORATORIES, INC.

## BULK ASBESTOS ANALYSIS - PLM SOIL

1039

Treadwell & Rollo
555 Montgomery Street, Ste 1300
San Francisco, CA 94111

PROJECT:
**PRESIDIO ASBESTOS SURVEY**
**JOB NO. 2893.14**

Micro Log In **56217**
Total Samples 42
Date Sampled 03/10/2004
Date Received 03/12/2004
Date Analyzed 03/16/2004

| SAMPLE INFORMATION | ASBESTOS INFORMATION<br>QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES | DOMINANT OTHER MATERIALS |
|---|---|---|
| Client: DUP031004A<br>Micro: 56217-36 Analyst: MG<br>SOIL TESTING | 10% CHRYSOTILE | ROCK FRAGMENTS<br>OPAQUES<br>SERPENTINE |
| Client: P6CSS200<br>Micro: 56217-37 Analyst: MG<br>SOIL TESTING | 2% CHRYSOTILE | ROCK FRAGMENTS<br>OPAQUES<br>SERPENTINE |
| Client: P6CSS201<br>Micro: 56217-38 Analyst: MG<br>SOIL TESTING | <1% CHRYSOTILE | ROCK FRAGMENTS<br>OPAQUES<br>CLAY |
| Client: P6CSS202<br>Micro: 56217-39 Analyst: MG<br>SOIL TESTING | <1% CHRYSOTILE | ROCK FRAGMENTS<br>OPAQUES<br>SERPENTINE<br>CLAY |
| Client: P6CSS203<br>Micro: 56217-40 Analyst: MG<br>SOIL TESTING | 2% CHRYSOTILE | 10 % CELLULOSE<br>ROCK FRAGMENTS<br>OPAQUES<br>SERPENTINE<br>CLAY |

Technical Supervisor: _____ 3/16/2004
Baojia Ke, Ph. D. Date Reported

NOTES: Weight % cannot be determined by PLM estimation or point counts. Asbestos fibers with diameter below ~1 mm may not be detected by PLM. The absence of asbestos in dust or debris (including wipe or microvacuum), and in some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM). Only dominant non-asbestos materials are indicated. This report must not be interpreted as a conclusive identification of non-asbestos (fibrous or not). Preparation (all samples): grinding, milling; teasing bundles apart; drying, if needed, by hotplate. Acid dissolution, ashing, or other matrix reduction techniques may be applied to some samples; residue asbestos % is corrected for amount of matrix removed. Various sample interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties. Notes are made if point counting is used; otherwise, asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (<<1%) may not be reliable or reproducible by PLM. Lower quantitation limit (reporting limit) of PLM estimation is 1%. The 95% UCL and LCL (Upper and Lower Confidence Limits) represent the highest and lowest expected concentrations for an asbestos point count, based on reported concentration and Poisson statistics. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos by weight; however, reliable determination of asbestos weight percent at this level cannot be done by PLM, and TEM is recommended. Layers of heterogeneous samples are analyzed separately; asbestos percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. Composite asbestos percentages on multilayered samples are applicable only to layered wall systems (wallboard, joint compound, and related materials); compositing is based on clients' descriptions of a material as "joint compound". Clients are solely responsible for identification and description of bulk materials listed on field forms. Laboratory sample descriptions may differ from descriptions given by the client. *Quality Control (QC) Codes: A = results confirmed (within acceptance limits); B = no asbestos detected in lab blank (SRM 1866a Fibrous Glass or equivalent); R = all materials confirmed after multiple result resolutions. NIST / NVLAP Accreditation Lab Code: #101872-0. California ELAP Certification #1037. EPA test method is based on the EPA Interim Method (1982), with several improvements in analytical techniques. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report must not be reproduced except in full, with approval of Micro Analytical Laboratories.

# MICRO ANALYTICAL LABORATORIES, INC.

## BULK ASBESTOS ANALYSIS - PLM SOIL

1039

Treadwell & Rollo
555 Montgomery Street, Ste 1300
San Francisco, CA 94111

PROJECT:
**PRESIDIO ASBESTOS SURVEY**
**JOB NO. 2893.14**

Micro Log In **56217**
Total Samples 42
Date Sampled 03/10/2004
Date Received 03/12/2004
Date Analyzed 03/16/2004

| SAMPLE INFORMATION | ASBESTOS INFORMATION<br>QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES | DOMINANT OTHER MATERIALS |
|---|---|---|
| Client: DUP031004B<br>Micro: 56217-41 Analyst: MG<br>SOIL TESTING | 2% CHRYSOTILE | 10 % CELLULOSE<br>ROCK FRAGMENTS<br>OPAQUES<br>SERPENTINE<br>CLAY |
| Client: P6CSS204<br>Micro: 56217-42 Analyst: MG<br>SOIL TESTING | NONE DETECTED | 20 % CELLULOSE<br>ROCK FRAGMENTS<br>OPAQUES<br>CLAY |

Technical Supervisor: for Baojia Ke, Ph. D. 3/16/2004 Date Reported

NOTES: Weight % cannot be determined by PLM estimation or point counts. Asbestos fibers with diameter below ~1 mm may not be detected by PLM. The absence of asbestos in dust or debris (including wipe or microvacuum), and in some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM). Only dominant non-asbestos materials are indicated. This report must not be interpreted as a conclusive identification of non-asbestos (fibrous or not). Preparation (all samples): grinding, milling; teasing bundles apart; drying, if needed, by hotplate. Acid dissolution, ashing, or other matrix reduction techniques may be applied to some samples; residue asbestos % is corrected for amount of matrix removed. Various sample interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties. Notes are made if point counting is used; otherwise, asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (<<1%) may not be reliable or reproducible by PLM. Lower quantitation limit (reporting limit) of PLM estimation is 1%. The 95% UCL and LCL (Upper and Lower Confidence Limits) represent the highest and lowest expected concentrations for an asbestos point count, based on reported concentration and Poisson statistics. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos by weight; however, reliable determination of asbestos weight percent at this level cannot be done by PLM, and TEM is recommended. Layers of heterogeneous samples are analyzed separately; asbestos percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. Composite asbestos percentages on multilayered samples are applicable only to layered wall systems (wallboard, joint compound, and related materials); compositing is based on clients' descriptions of a material as "joint compound". Clients are solely responsible for identification and description of bulk materials listed on field forms. Laboratory sample descriptions may differ from descriptions given by the client. *Quality Control (QC) Codes: A = results confirmed (within acceptance limits); B = no asbestos detected in lab blank (SRM 1866a Fibrous Glass or equivalent); R = all materials confirmed after multiple result resolutions. NIST / NVLAP Accreditation Lab Code: #101872-0. California ELAP Certification #1037. EPA test method is based on the EPA Interim Method (1982), with several improvements in analytical techniques. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report must not be reproduced except in full, with approval of Micro Analytical Laboratories.

**Treadwell&Rollo**
*Environmental and Geotechnical Consultant*

# CHAIN OF CUSTODY RECORD

56217



555 Montgomery Street, Suite 1300, San Francisco, CA 94111 Ph: 415-955-9040 / Fax: 415-955-9041
2 Theatre Square, Suite 216, Orinda CA 94563 Ph: 925-253-4980 / Fax: 925-253-4985
501 14th Street, 3rd Floor, Oakland, CA 94612 Ph: 510-874-4500 / Fax: 510-874-4507

Site Name: Presidio Asbestos Survey
Job Number: 2093.14
Project Manager\Contact: M. Chamberlain
Samplers: M K Gibbons
Recorder (Signature Required):

Turnaround Time: Standard

| | Field Sample Identification No. | Date | Time | Lab Sample No. | Matrix: Soil | Water | Other | No. Containers & Preservative: HCL | $H_2SO_4$ | $HNO_3$ | Ice | Other | Analysis Requested: Asbestos PLM | Silica gel clean-up | Hold | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | LF2SS100 | 3-9-04 | 905 | | X | | | | | | | | X | | | |
| 02 | LF2SS106 | 3-9-04 | 915 | | X | | | | | | | | X | | | |
| 03 | LF2SS105 | 3-9-04 | 925 | | X | | | | | | | | X | | | |
| 04 | LF2SS101 | 3-9-04 | 935 | | X | | | | | | | | X | | | |
| 05 | LF2SS102 | 3-9-04 | 945 | | X | | | | | | | | X | | | |
| 06 | LF2SS103 | 3-9-04 | 950 | | X | | | | | | | | X | | | |
| 07 | LF2SS104 | 3-9-04 | 955 | | X | | | | | | | | X | | | |
| 08 | CHPSS100 | 3-9-04 | 1130 | | X | | | | | | | | X | | | |
| 09 | CHPSS101 | 3-9-04 | 1145 | | X | | | | | | | | X | | | |
| 10 | CHPSS103 | 3-9-04 | 1150 | | X | | | | | | | | X | | | |
| 11 | CHPSS102 | 3-9-04 | 1155 | | X | | | | | | | | X | | | |
| 12 | CHPSS104 | 3-9-04 | 1209 | | X | | | | | | | | X | | | |
| 13 | BBISS200 | 3-9-04 | 1320 | | X | | | | | | | | X | | | |
| 14 | BBISS201 | 3-9-04 | 1330 | | X | | | | | | | | X | | | |

| | | | |
|---|---|---|---|
| Relinquished by: (Signature) | Date 3-11-04 | Time 1330 | Received by: (Signature) Tom Conner — Date 3/11/04 — Time 1550 |
| Relinquished by: (Signature) | Date | Time | Received by: (Signature) — Date 3.12.04 — Time 10:30 |
| Relinquished by: (Signature) | Date | Time | Received by Lab: (Signature) — Date — Time |

Sent to Laboratory (Name): Micro Analytical
Laboratory Comments/Notes:

Method of Shipment: ☐ Lab courier ☒ Fed Ex ☐ Airborne ☐ UPS ☐ Hand Carried ☐ Private Courier (Co. Name)

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COC Number: 003033

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*Environmental and Geotechnical Consultant*

# CHAIN OF CUSTODY RECORD

56219



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2 Theatre Square, Suite 216, Orinda CA 94563 Ph: 925-253-4980 / Fax: 925-253-4985
501 14th Street, 3rd Floor, Oakland, CA 94612 Ph: 510-874-4500 / Fax: 510-874-4507

Site Name: Presidio Asbestos Survey
Job Number: 2093.14
Project Manager\Contact: M. Chamberlain
Samplers: HH Gibbons
Recorder (Signature Required):

Turnaround Time: Standard

| | Field Sample Identification No. | Date | Time | Lab Sample No. | Matrix: Soil | Water | Other | No. Containers & Preservative: HCL | $H_2SO_4$ | $HNO_3$ | Ice | Other | Analysis Requested: Asbestos PLM | Silica gel clean-up | Hold | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15 | BB155202 | 3-9-04 | 1340 | | X | | | | | | | | X | | | |
| 16 | BB155203 | 3-9-04 | 1355 | | X | | | | | | | | X | | | |
| 17 | DUP030904A | 3-9-04 | 1355 | | X | | | | | | | | X | | | |
| 18 | BB155204 | 3-9-04 | 1405 | | X | | | | | | | | X | | | |
| 19 | BB155205 | 3-9-04 | 1415 | | X | | | | | | | | X | | | |
| 20 | DUP030904B | 3-9-04 | 1415 | | X | | | | | | | | X | | | |
| 21 | 63355100 | 3-9-04 | 1610 | | X | | | | | | | | X | | | |
| 22 | 63355101 | 3-9-04 | 1615 | | X | | | | | | | | X | | | |
| 23 | 63355102 | 3-9-04 | 1620 | | X | | | | | | | | X | | | |
| 24 | 63355103 | 3-9-04 | 1625 | | X | | | | | | | | X | | | |
| 25 | 63355104 | 3-9-04 | 1630 | | X | | | | | | | | X | | | |
| 26 | BB255204 | 3-10-04 | 1020 | | X | | | | | | | | X | | | |
| 27 | BB255203 | 3-10-04 | 1030 | | X | | | | | | | | X | | | |
| 28 | BB255202 | 3-10-04 | 1045 | | X | | | | | | | | X | | | |

| | | | | | |
|---|---|---|---|---|---|
| Relinquished by: (Signature) | Date 3-11-04 | Time 1330 | Received by: (Signature) | Date 3/11/04 | Time 1330 |
| Relinquished by: (Signature) | Date | Time | Received by: (Signature) | Date 3.12.04 | Time 10:30 |
| Relinquished by: (Signature) | Date | Time | Received by Lab: (Signature) | Date | Time |

Sent to Laboratory (Name): McCo Analytical
Laboratory Comments/Notes:

Method of Shipment: ☐ Lab courier ☒ Fed Ex ☐ Airborne ☐ UPS ☐ Hand Carried ☐ Private Courier (Co. Name)

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COC Number: 003036

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*Environmental and Geotechnical Consultant*

# CHAIN OF CUSTODY RECORD

56217




☒ 555 Montgomery Street, Suite 1300, San Francisco, CA 94111 Ph: 415-955-9040 / Fax: 415-955-9041
☐ 2 Theatre Square, Suite 216, Orinda CA 94563 Ph: 925-253-4980 / Fax: 925-253-4985
☐ 501 14th Street, 3rd Floor, Oakland, CA 94612 Ph: 510-874-4500 / Fax: 510-874-4507


Site Name: Presidio of San Francisco, CA Asbestos Surveys
Job Number: 2893.14
Project Manager\Contact: M Chamberlain
Samplers: MKG
Recorder (Signature Required):

Turnaround Time: Standard

| | Field Sample Identification No. | Date | Time | Lab Sample No. | Matrix: Soil | Water | Other | No. Containers & Preservative: HCL | $H_2SO_4$ | $HNO_3$ | Ice | Other | Analysis Requested: PLM/DS | Silica gel clean-up | Hold | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 29 | BB255701 | 3-10-04 | 1055 | | X | | | | | | | | X | | | |
| 30 | BB255200 | 3-10-04 | 1100 | | X | | | | | | | | X | | | |
| 31 | BB255205 | 3-10-04 | 1200 | | X | | | | | | | | X | | | |
| 32 | BB255206 | 3-10-04 | 1210 | | X | | | | | | | | X | | | |
| 33 | BB255207 | 3-10-04 | 1220 | | X | | | | | | | | X | | | |
| 34 | BB255208 | 3-10-04 | 1240 | | X | | | | | | | | X | | | |
| 35 | BB255209 | 3-10-04 | 1250 | | X | | | | | | | | X | | | |
| 36 | DUP031004A | 3-10-04 | 1250 | | X | | | | | | | | X | | | |
| 37 | P6CS5200 | 3-10-04 | 1420 | | X | | | | | | | | X | | | |
| 38 | P6CS5201 | 3-10-04 | 1425 | | X | | | | | | | | X | | | |
| 39 | P6CS5202 | 3-10-04 | 1430 | | X | | | | | | | | X | | | |
| 40 | P6CS5203 | 3-10-04 | 1435 | | X | | | | | | | | X | | | |
| 41 | DUP031004B | 3-10-04 | 1455 | | X | | | | | | | | X | | | |
| 42 | P6CS5204 | 3-10-04 | 1490 | | X | | | | | | | | X | | | |

| | | | |
|---|---|---|---|
| Relinquished by: (Signature) | Date 3-11-04 | Time 1330 | Received by: (Signature) |
| Relinquished by: (Signature) | Date | Time | Received by: (Signature) |
| Relinquished by: (Signature) | Date | Time | Received by Lab: (Signature) |

Received by: (Signature) — Date 3/11/04 — Time 1450
Received by: (Signature) — Date 3.12.04 — Time 10:30
Received by Lab: (Signature) — Date — Time

Sent to Laboratory (Name): Micro Analytical
Laboratory Comments/Notes:

Method of Shipment: ☐ Lab courier ☒ Fed Ex ☐ Airborne ☐ UPS ☐ Hand Carried ☐ Private Courier (Co. Name)

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COC Number: 003032

# MICRO ANALYTICAL LABORATORIES, INC.



**BULK ASBESTOS ANALYSIS - PLM SOIL**

1039

Treadwell & Rollo
555 Montgomery Street, Ste 1300
San Francisco, CA 94111

PROJECT:
**PRESIDIO OF SAN FRANCISCO**
**JOB NO. 2593.14**

RECEIVED
APR 07 2004
TREADWELL & ROLLO

Micro Log In **56947**
Total Samples 6
Date Sampled 03/31/2004
Date Received 04/01/2004
Date Analyzed 04/05/2004

| SAMPLE INFORMATION | ASBESTOS INFORMATION<br>QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES | DOMINANT OTHER MATERIALS |
|---|---|---|
| Client: BB2SS210<br>Micro: 56947-01 Analyst: GR<br>PLM SOIL | 2% CHRYSOTILE | ROCK FRAGMENTS<br>GLASS FRAGMENTS<br>NON-FIBROUS<br>SERPENTINE |
| Client: BB2SS211<br>Micro: 56947-02 Analyst: GR<br>PLM SOIL | 2% CHRYSOTILE | ROCK FRAGMENTS<br>GLASS FRAGMENTS<br>NON-FIBROUS<br>SERPENTINE |
| Client: BB2SS212<br>Micro: 56947-03 Analyst: GR<br>PLM SOIL | 2% CHRYSOTILE | ROCK FRAGMENTS<br>GLASS FRAGMENTS<br>NON-FIBROUS<br>SERPENTINE |
| Client: BB2SS213<br>Micro: 56947-04 Analyst: GR BK<br>PLM SOIL | QC*: R<br>5% CHRYSOTILE | ROCK FRAGMENTS<br>GLASS FRAGMENTS<br>NON-FIBROUS<br>SERPENTINE |
| Client: BB2SS214<br>Micro: 56947-05 Analyst: GR<br>PLM SOIL | 2% CHRYSOTILE | ROCK FRAGMENTS -<br>GLASS FRAGMENTS<br>NON-FIBROUS<br>SERPENTINE |

Technical Supervisor: _____ 4/5/2004

Baojia Ke, Ph. D. Date Reported

NOTES: Weight % cannot be determined by PLM estimation or point counts. Asbestos fibers with diameter below ~1 mm may not be detected by PLM. The absence of asbestos in dust or debris (including wipe or microvacuum), and in some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM). Only dominant non-asbestos materials are indicated. This report must not be interpreted as a conclusive identification of non-asbestos (fibrous or not). Preparation (all samples): grinding, milling; teasing bundles apart; drying, if needed, by hotplate. Acid dissolution, ashing, or other matrix reduction techniques may be applied to some samples; residue asbestos % is corrected for amount of matrix removed. Various sample interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties. Notes are made if point counting is used; otherwise, asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (<<1%) may not be reliable or reproducible by PLM. Lower quantitation limit (reporting limit) of PLM estimation is 1%. The 95% UCL and LCL (Upper and Lower Confidence Limits) represent the highest and lowest expected concentrations for an asbestos point count, based on reported concentration and Poisson statistics. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos by weight; however, reliable determination of asbestos weight percent at this level cannot be done by PLM, and TEM is recommended. Layers of heterogeneous samples are analyzed separately; asbestos percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. Composite asbestos percentages on multilayered samples are applicable only to layered wall systems (wallboard, joint compound, and related materials); compositing is based on clients' descriptions of a material as "joint compound". Clients are solely responsible for identification and description of bulk materials listed on field forms. Laboratory sample descriptions may differ from descriptions given by the client. *Quality Control (QC) Codes: A = results confirmed (within acceptance limits); B = no asbestos detected in lab blank (SRM 1866a Fibrous Glass or equivalent); R = all materials confirmed after multiple result resolutions. NIST / NVLAP Accreditation Lab Code: #101872-0. California ELAP Certification #1037. EPA test method is based on the EPA Interim Method (1982), with several improvements in analytical techniques. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report must not be reproduced except in full, with approval of Micro Analytical Laboratories.

# MICRO ANALYTICAL LABORATORIES, INC.



BULK ASBESTOS ANALYSIS - PLM SOIL

1039

Treadwell & Rollo
555 Montgomery Street, Ste 1300
San Francisco, CA 94111

PROJECT:
PRESIDIO OF SAN FRANCISCO
JOB NO. 2593.14

RECEIVED
APR 07 2004
TREADWELL & ROLLO

Micro Log In 56947
Total Samples 6
Date Sampled 03/31/2004
Date Received 04/01/2004
Date Analyzed 04/05/2004

| SAMPLE INFORMATION | ASBESTOS INFORMATION<br>QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES | DOMINANT OTHER MATERIALS |
|---|---|---|
| Client: DUP033104A<br>Micro: 56947-06 Analyst: GR<br>PLM SOIL | 2% CHRYSOTILE | ROCK FRAGMENTS<br>GLASS FRAGMENTS<br>NON-FIBROUS<br>SERPENTINE |

Technical Supervisor: _____ 4/5/2004
Baojia Ke, Ph. D. Date Reported

NOTES: Weight % cannot be determined by PLM estimation or point counts. Asbestos fibers with diameter below ~1 mm may not be detected by PLM. The absence of asbestos in dust or debris (including wipe or microvacuum), and in some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM). Only dominant non-asbestos materials are indicated. This report must not be interpreted as a conclusive identification of non-asbestos (fibrous or not). Preparation (all samples): grinding, milling; teasing bundles apart; drying, if needed, by hotplate. Acid dissolution, ashing, or other matrix reduction techniques may be applied to some samples; residue asbestos % is corrected for amount of matrix removed. Various sample interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties. Notes are made if point counting is used; otherwise, asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (<<1%) may not be reliable or reproducible by PLM. Lower quantitation limit (reporting limit) of PLM estimation is 1%. The 95% UCL and LCL (Upper and Lower Confidence Limits) represent the highest and lowest expected concentrations for an asbestos point count, based on reported concentration and Poisson statistics. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos by weight; however, reliable determination of asbestos weight percent at this level cannot be done by PLM, and TEM is recommended. Layers of heterogeneous samples are analyzed separately; asbestos percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. Composite asbestos percentages on multilayered samples are applicable only to layered wall systems (wallboard, joint compound, and related materials); compositing is based on clients' descriptions of a material as "joint compound". Clients are solely responsible for identification and description of bulk materials listed on field forms. Laboratory sample descriptions may differ from descriptions given by the client. *Quality Control (QC) Codes: A = results confirmed (within acceptance limits); B = no asbestos detected in lab blank (SRM 1866a Fibrous Glass or equivalent); R = all materials confirmed after multiple result resolutions. NIST / NVLAP Accreditation Lab Code: #101872-0. California ELAP Certification #1037. EPA test method is based on the EPA Interim Method (1982), with several improvements in analytical techniques. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report must not be reproduced except in full, with approval of Micro Analytical Laboratories.

56947 PIM soil

**Treadwell&Rollo**
*Environmental and Geotechnical Consultant*

# CHAIN OF CUSTODY RECORD



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501 14th Street, 3rd Floor, Oakland, CA 94612 Ph: 510-874-4500 / Fax: 510-874-4507

Site Name: Presidio of San Francisco
Job Number: 2693.15
Project Manager\Contact: M. Chamberlain
Samplers: M. Colborns
Recorder (Signature Required):

Turnaround Time: Standard

| Field Sample Identification No. | Date | Time | Lab Sample No. | Matrix: Soil | Water | Other | No. Containers & Preservative: HCL | $H_2SO_4$ | $HNO_3$ | Ice | Other | Analysis Requested: Asbestos | Silica gel clean-up | Hold | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 BB255210 | 3/31 | 950 | | X | | | | | | | | X | | | |
| 02 BB255211 | 3/31 | 1005 | | X | | | | | | | | X | | | |
| 03 BB255212 | 3/31 | 1015 | | X | | | | | | | | X | | | |
| 04 BB255213 | 3/31 | 1025 | | X | | | | | | | | X | | | |
| 05 BB255214 | 3/31 | 1040 | | X | | | | | | | | X | | | |
| 06 DUP03101A | 3/31 | 105 | | X | | | | | | | | X | | | |

| | | | | | |
|---|---|---|---|---|---|
| Relinquished by: (Signature) | Date 3/31/04 | Time 1715 | Received by: (Signature) | Date 3/31/04 | Time 1715 |
| Relinquished by: (Signature) | Date | Time | Received by: (Signature) | Date 4.1.04 | Time 13:40 |
| Relinquished by: (Signature) | Date | Time | Received by Lab: (Signature) | Date | Time |

Sent to Laboratory (Name): MICRO Analytical
Laboratory Comments/Notes:

Method of Shipment: [X] Lab courier [ ] Fed Ex [ ] Airborne [ ] UPS [ ] Hand Carried [X] Private Courier (Co. Name)

White Copy - Original  Yellow Copy - Laboratory  Pink Copy - Field  COC-Number: 002928

**Attachment B**
**Air Sample Laboratory Reports**

# SCHNEIDER LABORATORIES

**INCORPORATED**

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## LABORATORY ANALYSIS REPORT

Asbestos and Other Fibers Counted By NIOSH 7400 Method, Issue 2, Aug. 12, 1994

**ACCOUNT #:** 3002-04-319
**CLIENT:** RGA Environmental Inc.
**ADDRESS:** 1468 66TH STREET
EMERYVILLE, CA 94608-1014
**PO NO.:**
**PROJECT NAME:** Baker Beach
**PROJECT NO.:** TR10249
**JOB LOCATION:** Presidio, CA

**DATE COLLECTED:** 5/11/2004
**DATE RECEIVED:** 5/18/2004
**DATE ANALYZED:** 5/18/2004
**DATE REPORTED:** 7/ 1/2004
**RESPIRATOR:**

Personal and Excursion Samples Collected For OSHA Compliance.

| SLI Sample No. | Client Sample No. | Sample Identification | Sample Date | Flow Rate (L/min) | Sample Time (min) | Sample Volume (L) | Fiber Count (f/field) | Actual Exp. (f/cc) | 30 Min TWA (f/cc) | 8 Hr TWA (f/cc) |
|---|---|---|---|---|---|---|---|---|---|---|
| 28019708M342253 | | 1A | 5/11/04 | 2.00 | 95 | 190.0 | < 0.055 | < 0.014 | | |
| 28019709M342251 | | 1B | 5/11/04 | 2.00 | 48 | 96.0 | < 0.055 | < 0.028 | | |
| 28019710M342197 | | 1C | 5/11/04 | 2.00 | 121 | 242.0 | < 0.055 | < 0.011 | | |
| | | *Marianne* | | | | | | | | < 0.008 |
| 28019711M342256 | | 2A | 5/11/04 | 2.00 | 90 | 180.0 | < 0.055 | < 0.015 | | |
| 28019712M342200 | | 2B | 5/11/04 | 2.00 | 48 | 96.0 | < 0.055 | < 0.028 | | |
| 28019713M342234 | | 2C | 5/11/04 | 2.00 | 121 | 242.0 | < 0.055 | < 0.011 | | |
| | | *Mary* | | | | | | | | < 0.008 |
| 28019714M342191 | | | 5/11/04 | 2.00 | 30 | 60.0 | < 0.055 | < 0.045 | < 0.045 | |
| | | *Mary* | | | | | | | | |
| 28019715M342209 | | | 5/11/04 | 2.00 | 30 | 60.0 | < 0.055 | < 0.045 | < 0.045 | |
| | | *Marianne* | | | | | | | | |

**ANALYST: SUSAN CHILDRESS**
**Total no. of pages in report =** 2

**REVIEWED BY**

***AMENDED REPORT***

*OSHA PELs are 1.0 f/cc for 30 min excursion and 0.1 f/cc for 8 hour TWA. Method Limit: 0.01 f/cc. Microscopic field area (mm²): 0.00785. Estimated limit of detection: 7 f/mm². Results are not blank-corrected unless noted by analyst. Exposure calculations are based on client-supplied information. 8 hour TWAs assume zero exposure for time not sampled. Estimated relative standard deviations: Intra-Laboratory: ± 0.26; Inter-Laboratory: ± 0.41.*

# SCHNEIDER LABORATORIES

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## LABORATORY ANALYSIS REPORT

Asbestos and Other Fibers Counted By NIOSH 7400 Method, Issue 2, Aug. 12, 1994

**ACCOUNT:** 3002-04-319
**CLIENT:** RGA Environmental Inc.
**ADDRESS:** 1466 66TH STREET
EMERYVILLE, CA 94608-1014
**PO NO.:**
**PROJECT NAME:** Baker Beach
**PROJECT NO.:** TR10249
**JOB LOCATION:** Presidio, CA

**DATE COLLECTED:** 5/11/04
**DATE RECEIVED:** 5/18/04
**DATE ANALYZED:** 5/18/04
**DATE REPORTED:** 7/ 1/04
**RESPIRATOR:**

Area and Environmental Samples

| SLI Sample No. | Client Sample No. | Sample Identification | Sample Date | Flow Rate (L/min) | Sample Time (min) | Sample Volume (L) | Fiber Count (f/field) | Actual Exposure (f/cc) |
|---|---|---|---|---|---|---|---|---|
| 28019706 | M342258 | Upwind | 5/11/04 | 2.00 | 233 | 466.0 | < 0.055 | < 0.006 |
| 28019707 | M342262 | Down Wind | 5/11/04 | 2.00 | 233 | 466.0 | < 0.055 | < 0.006 |

**ANALYST: SUSAN CHILDRESS**
**Total no. of pages in report = 2**

**REVIEWED BY**

***AMENDED REPORT***

*OSHA PEL is 0.1 f/cc for 8h TWA. Method limit: 0.01 f/cc. Results are not blank-corrected unless noted by analyst. Exposure calculations are based on client-supplied information. 8 hour TWAs assume zero exposure for time not sampled. Microscopic field area ($mm^2$): 0.00785. Estimated limit of detection: .7 $f/mm^2$. Estimated relative standard deviations: Intra-Laboratory: ± 0.26; Inter-Laboratory: ± 0.41.*

3002-04-011

RGA Environmental, Inc.

☑ 1466 - 66th Street, Emeryville, CA 94608, Tel: (510) 547-7771, Fax: (510) 547-1983
☐ 311 California Street Ste 320, San Francisco, CA 94102, Tel: (415) 834-9660, Fax: (415) 834-9670
☐ 948 - 11th St., Ste 114, Modesto, CA 94954, Tel: (209) 525-8108, Fax: (209) 525-8109

# PCM AIR SAMPLE DATA SHEET

* PCM Analysis per NIOSH 7400A



Project Name/Address: BAKER BEACH DISTRIBUTED AREA I, PRESIDIO, CA P.M. Initial: KP

RGA Project #: TR-10249 Sampled By: MARY ZIRICH Sampling Date: 5.11.04

Sample(s) Sent To: ☐ R.J. Lee ☐ Micro ☒ Other: _____ Turnaround Time: ___Rush ___24Hrs ___3-5 Days

Fax Report To: ☑ 510-547-1983 ☐ 415-834-9670 ☐ 209-525-8109 ☐ (Fax #) _____

ANALYZED BY RGA (NAME): _____ DATE: _____

---

SAMPLE ID: N342258
SAMPLE LOCATION: UPWIND
SAMPLE TYPE: ___Clearance ___Baseline ☒ Perimeter ___Area ___Blank
WORK ACTIVITY: WEEDING IN SERPENTINE SOIL
TIME ON: 919 TIME OFF: 312
FLOW RATES: 2.0 (LPM)
TOTAL MINUTES: 233 VOLUME: 466 (L)
Number of Fibers _____ Number of Fields _____
AIRBORNE FIBER CONC. = _____ fibers/cc

---

SAMPLE ID: N342262
SAMPLE LOCATION: DOWN WIND
SAMPLE TYPE: ___Clearance ___Baseline ☒ Perimeter ___Area ___Blank
WORK ACTIVITY: WEEDING IN SERPENTINE SOIL
TIME ON: 919 TIME OFF: 312
FLOW RATES: 2.0 (LPM)
TOTAL MINUTES: 233 VOLUME: 466 (L)
Number of Fibers _____ Number of Fields _____
AIRBORNE FIBER CONC. = _____ fibers/cc

---

SAMPLE ID: N342253
SAMPLE LOCATION: MARKING 1-A
SAMPLE TYPE: ___Clearance ___Baseline ___Perimeter ___Area ___Blank
WORK ACTIVITY: WEEDING IN SERPENTINE SOIL
TIME ON: 920 TIME OFF: 1055
FLOW RATES: 2.0 (LPM)
TOTAL MINUTES: 95 VOLUME: 190 (L)
Number of Fibers _____ Number of Fields _____
AIRBORNE FIBER CONC. = _____ fibers/cc

---

SAMPLE ID: N342251
SAMPLE LOCATION: MARIANNE - 1-B
SAMPLE TYPE: ___Clearance ___Baseline ___Perimeter ___Area ___Blank
WORK ACTIVITY: WEEDING IN SERPENTINE SOIL
TIME ON: 1055 TIME OFF: 1143
FLOW RATES: 2.0 (LPM)
TOTAL MINUTES: 48 VOLUME: 96 (L)
Number of Fibers _____ Number of Fields _____
AIRBORNE FIBER CONC. = _____ fibers/cc

---

SAMPLE ID: N342197
SAMPLE LOCATION: MARKING 1-C
SAMPLE TYPE: ___Clearance ___Baseline ___Perimeter ___Area ___Blank
WORK ACTIVITY: WEEDING IN SERPENTINE SOIL
TIME ON: 109 TIME OFF: 310
FLOW RATES: 2.0 (LPM)
TOTAL MINUTES: 121 VOLUME: 242 (L)
Number of Fibers _____ Number of Fields _____
AIRBORNE FIBER CONC. = _____ fibers/cc

---

Relinquished By: _____ Signature: _____ Date/Time: _____

Received By: [illegible] 10:30 Signature: [signature] Date/Time: 5/18.04

⊕ SAMPLES WERE OFF FROM 12:12 - 1:12 PM

RGA Environmental, Inc.
1466 - 66th Street, Emeryville, CA 94608, Tel: (510) 547-7771, Fax: (510) 547-1983
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948 - 11th St., Ste 11-I, Modesto, CA 94354, Tel: (209) 525-8108, Fax: (209) 525-8109

# PCM AIR SAMPLE DATA SHEET

* PCM Analysis
* NIOSH 7400A



Project Name/Address: BAKER BENCH I, FRESNO, CA P.M. Initial: KP

RGA Project #: TR10249 Sampled By: MARY TRAVICH Sampling Date: 5.11.04

Sample(s) Sent To: ☐ R.J. Lee ☐ Micro ☒ Other: _____ Turnaround Time: ___Rush ___24Hrs ___3-5 Days

Fax Report To: ☑ 510-547-1983 ☐ 415-834-9670 ☐ 209-525-8109 ☐ (Fax #) _____

ANALYZED BY RGA (NAME): _____ DATE: _____

---

SAMPLE ID: M342256
SAMPLE LOCATION: MARY - 2-A
SAMPLE TYPE: ___Clearance ___Baseline ___Perimeter ___Area ___Blank
WORK ACTIVITY: WEEDING IN SERPENTINE SOIL

TIME ON: 920 TIME OFF: 1050
FLOW RATES: 2.0 (LPM)
TOTAL MINUTES: 90 VOLUME: 180 (L)
Number of Fibers _____ Number of Fields _____
*AIRBORNE FIBER CONC.* = _____ *fibers/cc*

---

SAMPLE ID: M342200
SAMPLE LOCATION: MARY 2-B
SAMPLE TYPE: ___Clearance ___Baseline ___Perimeter ___Area ___Blank
WORK ACTIVITY: _____

TIME ON: 1055 TIME OFF: 1143
FLOW RATES: 2.0 (LPM)
TOTAL MINUTES: 48 VOLUME: 96 (L)
Number of Fibers _____ Number of Fields _____
*AIRBORNE FIBER CONC.* = _____ *fibers/cc*

---

SAMPLE ID: M342234
SAMPLE LOCATION: MARY 2-C
SAMPLE TYPE: ___Clearance ___Baseline ___Perimeter ___Area ___Blank
WORK ACTIVITY: _____

TIME ON: 109 TIME OFF: 810
FLOW RATES: 2.0 (LPM)
TOTAL MINUTES: 121 VOLUME: 242 (L)
Number of Fibers _____ Number of Fields _____
*AIRBORNE FIBER CONC.* = _____ *fibers/cc*

---

SAMPLE ID: M342191
SAMPLE LOCATION: STEZ - MARY
SAMPLE TYPE: ___Clearance ___Baseline ___Perimeter ___Area ___Blank
WORK ACTIVITY: _____

TIME ON: 920 TIME OFF: 950
FLOW RATES: 2.0 (LPM)
TOTAL MINUTES: 30 VOLUME: 60 (L)
Number of Fibers _____ Number of Fields _____
*AIRBORNE FIBER CONC.* = _____ *fibers/cc*

---

SAMPLE ID: M342209
SAMPLE LOCATION: STEZ - MARIANNE
SAMPLE TYPE: ___Clearance ___Baseline ___Perimeter ___Area ___Blank
WORK ACTIVITY: _____

TIME ON: 1059 TIME OFF: 1126
FLOW RATES: 2.0 (LPM)
TOTAL MINUTES: 30 VOLUME: 60 (L)
Number of Fibers _____ Number of Fields _____
*AIRBORNE FIBER CONC.* = _____ *fibers/cc*

---

Relinquished By: MARY TRAVICH Signature: _____ Date/Time: 5/11/04

Received By: _____ 10:30 Signature: _____ Date/Time: 5.18.4

# SCHNEIDER LABORATORIES

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## LABORATORY ANALYSIS REPORT

Asbestos and Other Fibers Counted By NIOSH 7400 Method, Issue 2, Aug. 12, 1994

**ACCOUNT #:** 3002-04-318
**CLIENT:** RGA Environmental Inc.
**ADDRESS:** 1466 66TH STREET
EMERYVILLE, CA 94608-1014
**PO NO.:**
**PROJECT NAME:** Baker Beach II
**PROJECT NO.:** TR10249
**JOB LOCATION:** Presidio, CA

**DATE COLLECTED:** 5/13/2004
**DATE RECEIVED:** 5/18/2004
**DATE ANALYZED:** 5/18/2004
**DATE REPORTED:** 6/30/2004
**RESPIRATOR:**

Personal and Excursion Samples Collected For OSHA Compliance.

| SLI Sample No. | Client Sample No. | Sample Identification | Sample Date | Flow Rate (L/min) | Sample Time (min) | Sample Volume (L) | Fiber Count (f/field) | Actual Exp. (f/cc) | 30 Min TWA (f/cc) | 8 Hr TWA (f/cc) |
|---|---|---|---|---|---|---|---|---|---|---|
| 28019700M342188 | | Weeding | 5/13/04 | 2.00 | 121 | 242.0 | < 0.055 | < 0.011 | | |
| 28019703M342259 | | Weeding *Marianne* | 5/13/04 | 2.00 | 120 | 240.0 | 0.105 | 0.021 | | 0.005 |
| 28019701M342175 | | Weeding *Mary* | 5/13/04 | 2.00 | 121 | 242.0 | < 0.055 | < 0.011 | | < 0.003 |
| 28019702M342181 | | Weeding *Mike* | 5/13/04 | 2.00 | 30 | 60.0 | < 0.055 | < 0.045 | < 0.045 | |
| 28019704M342244 | | Weeding *Marianne* | 5/13/04 | 2.00 | 30 | 60.0 | < 0.055 | < 0.045 | < 0.045 | |
| 28019705M342505 | | *Mike* | 5/13/04 | 2.00 | 120 | 240.0 | < 0.055 | < 0.011 | | < 0.003 |

**ANALYST:** SUSAN CHILDRESS
**Total no. of pages in report =**

**REVIEWED BY** KATHERINE M. CHARLES

*OSHA PELs are 1.0 f/cc for 30 min excursion and 0.1 f/cc for 8 hour TWA. Method Limit: 0.01 f/cc. Microscopic field area ($mm^2$): 0.00785. Estimated limit of detection: 7 f/$mm^2$. Results are not blank-corrected unless noted by analyst. Exposure calculations are based on client-supplied information. 8 hour TWAs assume zero exposure for time not sampled. Estimated relative standard deviations: Intra-Laboratory: ± 0.26; Inter-Laboratory: ± 0.41.*

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## LABORATORY ANALYSIS REPORT

Asbestos and Other Fibers Counted By NIOSH 7400 Method, Issue 2, Aug. 12, 1994

**ACCOUNT:** 3002-04-318
**CLIENT:** RGA Environmental Inc.
**ADDRESS:** 1466 66TH STREET
EMERYVILLE, CA 94608-1014
**PO NO.:**
**PROJECT NAME:** Baker Beach II
**PROJECT NO.:** TR10249
**JOB LOCATION:** Presidio, CA

**DATE COLLECTED:** 5/13/2004
**DATE RECEIVED:** 5/18/2004
**DATE ANALYZED:** 5/18/2004
**DATE REPORTED:** 5/19/2004
**RESPIRATOR:**

Area and Environmental Samples

| SLI Sample No. | Client Sample No. | Sample Identification | Sample Date | Flow Rate (L/min) | Sample Time (min) | Sample Volume (L) | Fiber Count (f/field) | Actual Exposure (f/cc) |
|---|---|---|---|---|---|---|---|---|
| 28019698 | M342179 | Up | 5/13/2004 | 2.00 | 240 | 480.0 | Too overloaded to count | |
| 28019699 | M342173 | Down | 5/13/2004 | 2.00 | 240 | 480.0 | < 0.055 | < 0.006 |

**ANALYST: SUSAN CHILDRESS**
**Total no. of pages in report = 2**

**REVIEWED BY** **BEVERLY A. SCHRAGE**

*OSHA PEL is 0.1 f/cc for 8h TWA. Method limit: 0.01 f/cc. Results are not blank-corrected unless noted by analyst. Exposure calculations are based on client-supplied information. 8 hour TWAs assume zero exposure for time not sampled. Microscopic field area ($mm^2$): 0.00785. Estimated limit of detection: 7 f/$mm^2$. Estimated relative standard deviations: Intra-Laboratory: ± 0.26; Inter-Laboratory: ± 0.41.*

JWC-07-510

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☐ 948 - 11th St., Ste 11-I, Modesto, CA 94354, Tel: (209) 525-8108, Fax: (209) 525-8109

# PCM AIR SAMPLE DATA SHEET

* PCM: Analysis per NIOSH 7400A



Project Name/Address: BAKER BEACH II, PRESIDIO, CA P.M. Initial: KP

RGA Project #: TR-10219 Sampled By: MARY WARNER Sampling Date: 5.13.04

Sample(s) Sent To: ☐ R.J. Lee ☐ Micro ☒ Other: _____ Turnaround Time: ___ Rush [redacted] Hrs ___ 3-5 Days

Fax Report To: ☒ 510-547-1983 ☐ 415-834-9670 ☐ 209-525-8109 ☐ (Fax #) _____

ANALYZED BY RGA (NAME): DATE:

| | |
|---|---|
| SAMPLE ID: M342179 | TIME ON: 925 TIME OFF: 1325 |
| SAMPLE LOCATION UP | FLOW RATES: 2.0 (LPM) |
| | TOTAL MINUTES: 240 VOLUME: 480 (L) |
| SAMPLE TYPE: ___Clearance ___Baseline X Perimeter ___Area ___Blank | Number of Fibers _____ Number of Fields _____ |
| WORK ACTIVITY: | *AIRBORNE FIBER CONC.* = _____ *fibers/cc* |

| | |
|---|---|
| SAMPLE ID: M342173 | TIME ON: 925 TIME OFF: 1325 |
| SAMPLE LOCATION DOWN | FLOW RATES: 2.0 (LPM) |
| | TOTAL MINUTES: 240 VOLUME: 480 (L) |
| SAMPLE TYPE: ___Clearance ___Baseline X Perimeter ___Area ___Blank | Number of Fibers _____ Number of Fields _____ |
| WORK ACTIVITY: | *AIRBORNE FIBER CONC.* = _____ *fibers/cc* |

| | |
|---|---|
| SAMPLE ID: M342188 | TIME ON: 929 TIME OFF: 1130 |
| SAMPLE LOCATION MARKING | FLOW RATES: 2.0 (LPM) |
| | TOTAL MINUTES: 121 VOLUME: 242 (L) |
| SAMPLE TYPE: ___Clearance ___Baseline ___Perimeter ___Area ___Blank | Number of Fibers _____ Number of Fields _____ |
| WORK ACTIVITY: WEEDING | *AIRBORNE FIBER CONC.* = _____ *fibers/cc* |

| | |
|---|---|
| SAMPLE ID: M342175 | TIME ON: 929 TIME OFF: 1130 |
| SAMPLE LOCATION MARY | FLOW RATES: 2.0 (LPM) |
| | TOTAL MINUTES: 121 VOLUME: 242 (L) |
| SAMPLE TYPE: ___Clearance ___Baseline ___Perimeter ___Area ___Blank | Number of Fibers _____ Number of Fields _____ |
| WORK ACTIVITY: WEEDING | *AIRBORNE FIBER CONC.* = _____ *fibers/cc* |

| | |
|---|---|
| SAMPLE ID: M342181 | TIME ON: 135 TIME OFF: 205 |
| SAMPLE LOCATION STG. - MARY MIKE | FLOW RATES: 2.0 (LPM) |
| | TOTAL MINUTES: 30 VOLUME: 60 (L) |
| SAMPLE TYPE: ___Clearance ___Baseline ___Perimeter ___Area ___Blank | Number of Fibers _____ Number of Fields _____ |
| WORK ACTIVITY: WEEDING | *AIRBORNE FIBER CONC.* = _____ *fibers/cc* |

Relinquished By: MARY WARNER Signature: _____ Date/Time: 5/18/04

Received By: _____ 5.18.4 Signature: 10:30 Date/Time: _____

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☐ 948 - 11th St., Ste 11-I, Modesto, CA 94354, Tel: (209) 525-8108, Fax: (209) 525-8109

# PCM AIR SAMPLE DATA SHEET

* PCM Analysis NIOSH 7400A



Project Name/Address: BAKER BEACH II, PRESIDIO P.M. Initial: KP

RGA Project #: 10249 Sampled By: MANU TAVILLA Sampling Date: 5.13.04

Sample(s) Sent To: ☐ R.J. Lee ☐ Micro ☐ Other: Turnaround Time: ☒ 24Hrs ☐ 3-5 Days

Fax Report To: ☐ 510-547-1983 ☐ 415-834-9670 ☐ 209-525-8109 ☐ (Fax #)

ANALYZED BY RGA (NAME): DATE:

| | |
|---|---|
| SAMPLE ID: M342259 | TIME ON: 105 TIME OFF: 305 |
| SAMPLE LOCATION MAINTNG 1-B | FLOW RATES: 2.0 (LPM) |
| | TOTAL MINUTES: 120 VOLUME: 240 (L) |
| SAMPLE TYPE: ___Clearance ___Baseline ___Perimeter ___Area ___Blank | Number of Fibers ___ Number of Fields ___ |
| WORK ACTIVITY: WEEDING | *AIRBORNE FIBER CONC.* = ___ *fibers/cc* |

| | |
|---|---|
| SAMPLE ID: M342244 | TIME ON: 105 TIME OFF: 135 |
| SAMPLE LOCATION MAINTNNG - STEL | FLOW RATES: 2.0 (LPM) |
| | TOTAL MINUTES: 30 VOLUME: 60 (L) |
| SAMPLE TYPE: ___Clearance ___Baseline ___Perimeter ___Area ___Blank | Number of Fibers ___ Number of Fields ___ |
| WORK ACTIVITY: WEEDING | *AIRBORNE FIBER CONC.* = ___ *fibers/cc* |

| | |
|---|---|
| SAMPLE ID: M342505 | TIME ON: 105 TIME OFF: 305 |
| SAMPLE LOCATION MIKE - 3A | FLOW RATES: 2.0 (LPM) |
| | TOTAL MINUTES: ~~30~~ VOLUME: ~~60~~ (L) |
| SAMPLE TYPE: ___Clearance ___Baseline ___Perimeter ___Area ___Blank | Number of Fibers 120 Number of Fields 240 |
| WORK ACTIVITY: | *AIRBORNE FIBER CONC.* = ___ *fibers/cc* |

| | |
|---|---|
| SAMPLE ID: | TIME ON: TIME OFF: |
| SAMPLE LOCATION | FLOW RATES: (LPM) |
| | TOTAL MINUTES: VOLUME: (L) |
| SAMPLE TYPE: ___Clearance ___Baseline ___Perimeter ___Area ___Blank | Number of Fibers ___ Number of Fields ___ |
| WORK ACTIVITY: | *AIRBORNE FIBER CONC.* = ___ *fibers/cc* |

| | |
|---|---|
| SAMPLE ID: | TIME ON: TIME OFF: |
| SAMPLE LOCATION | FLOW RATES: (LPM) |
| | TOTAL MINUTES: VOLUME: (L) |
| SAMPLE TYPE: ___Clearance ___Baseline ___Perimeter ___Area ___Blank | Number of Fibers ___ Number of Fields ___ |
| WORK ACTIVITY: | *AIRBORNE FIBER CONC.* = ___ *fibers/cc* |

Relinquished By: Signature: Date/Time:

Received By: M. Gattis 5.18.4 Signature: 10:20 Date/Time:

# SCHNEIDER LABORATORIES
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## LABORATORY ANALYSIS REPORT

Asbestos and Other Fibers Counted By NIOSH 7400 Method, Issue 2, Aug. 12, 1994

**ACCOUNT:** 3002-04-321
**CLIENT:** RGA Environmental Inc.
**ADDRESS:** 1466 66TH STREET
EMERYVILLE, CA 94608-1014

**PO NO.:**
**PROJECT NAME:** Golf Course
**PROJECT NO.:** TR10249
**JOB LOCATION:** Presidio, CA

**DATE COLLECTED:** 5/12/2004
**DATE RECEIVED:** 5/18/2004
**DATE ANALYZED:** 5/18/2004
**DATE REPORTED:** 5/19/2004
**RESPIRATOR:**

Area and Environmental Samples

| SLI Sample No. | Client Sample No. | Sample Identification | Sample Date | Flow Rate (L/min) | Sample Time (min) | Sample Volume (L) | Fiber Count (f/field) | Actual Exposure (f/cc) |
|---|---|---|---|---|---|---|---|---|
| 28019744 | M342198 | Up Wind | 5/12/2004 | 2.00 | 368 | 736.0 | < 0.055 | < 0.004 |
| 28019745 | M342254 | Down Wind | 5/12/2004 | 2.00 | 368 | 736.0 | < 0.055 | < 0.004 |

**ANALYST:** SUSAN CHILDRESS
Total no. of pages in report = 2

**REVIEWED BY** BEVERLY A. SCHRAGE

*OSHA PEL is 0.1 f/cc for 8h TWA. Method limit: 0.01 f/cc. Results are not blank-corrected unless noted by analyst. Exposure calculations are based on client-supplied information. 8 hour TWAs assume zero exposure for time not sampled. Microscopic field area ($mm^2$): 0.00785. Estimated limit of detection: 7 f/$mm^2$. Estimated relative standard deviations: Intra-Laboratory: ± 0.26; Inter-Laboratory: ± 0.41.*

# SCHNEIDER LABORATORIES

INCORPORATED

2512 W. Cary Street • Richmond, Virginia • 23220-5117
804-353-6778 • 800-785-LABS (5227) • (FAX) 804-353-6928

*Excellence in Service and Technology*

AIHA/ELLAP 100527, NVLAP 101150-0, NYELAP/NELAC 11413, CAELAP 2078, NC 593

## LABORATORY ANALYSIS REPORT

Asbestos and Other Fibers Counted By NIOSH 7400 Method, Issue 2, Aug. 12, 1994

**ACCOUNT #:** 3002-04-321
**CLIENT:** RGA Environmental Inc.
**ADDRESS:** 1466 66TH STREET
EMERYVILLE, CA 94608-1014

**PO NO.:**
**PROJECT NAME:** Golf Course
**PROJECT NO.:** TR10249
**JOB LOCATION:** Presidio, CA

**DATE COLLECTED:** 5/12/2004
**DATE RECEIVED:** 5/18/2004
**DATE ANALYZED:** 5/18/2004
**DATE REPORTED:** 5/19/2004
**RESPIRATOR:**

Personal and Excursion Samples Collected For OSHA Compliance.

| SLI Sample No. | Client Sample No. | Sample Identification | Sample Date | Flow Rate (L/min) | Sample Time (min) | Sample Volume (L) | Fiber Count (f/field) | Actual Exp. (f/cc) | 30 Min TWA (f/cc) | 8 Hr TWA (f/cc) |
|---|---|---|---|---|---|---|---|---|---|---|
| 28019741 | M342189 | 1-A | 5/12/2004 | 2.00 | 174 | 348.0 | 0.105 | 0.015 | | |
| 28019742 | M342190 | 1-B *Marianne* | 5/12/2004 | 2.00 | 105 | 210.0 | 0.060 | 0.014 | | 0.008 |
| 28019743 | M342250 | 2-A | 5/12/2004 | 2.00 | 172 | 344.0 | < 0.055 | < 0.008 | | |
| 28019746 | M342460 | 2-B *Mary* | 5/12/2004 | 2.00 | 105 | 210.0 | < 0.055 | < 0.013 | | < 0.006 |
| 28019747 | M342255 | *Mary* | 5/12/2004 | 2.00 | 30 | 60.0 | < 0.055 | < 0.045 | < 0.045 | |
| 28019748 | M342263 | *Marianne* | 5/12/2004 | 2.00 | 30 | 60.0 | < 0.055 | < 0.045 | < 0.045 | |

**ANALYST:** SUSAN CHILDRESS
**Total no. of pages in report =** 2

**REVIEWED BY** BEVERLY A. SCHRAGE

*OSHA PELs are 1.0 f/cc for 30 min excursion and 0.1 f/cc for 8 hour TWA. Method Limit: 0.01 f/cc. Microscopic field area ($mm^2$): 0.00785. Estimated limit of detection: 7 f/$mm^2$. Results are not blank-corrected unless noted by analyst. Exposure calculations are based on client-supplied information. 8 hour TWAs assume zero exposure for time not sampled. Estimated relative standard deviations: Intra-Laboratory: ± 0.26; Inter-Laboratory: ± 0.41.*

RGA Environmental, Inc.

☑ 1466 - 66th Street, Emeryville, CA 94608, Tel: (510) 547-7771, Fax: (510) 547-1983
☐ 311 California Street Ste 320, San Francisco, CA 94102, Tel: (415) 834-9660, Fax: (415) 834-9670
☐ 948 - 11th St., Ste 11-I, Modesto, CA 94354, Tel: (209) 525-8108, Fax: (209) 525-8109

# PCM AIR SAMPLE DATA SHEET

(30224-32)

* PCM Analysis
* NIOSH 7400A

PAGE 1 OF 2

Project Name/Address: GOLF COURSE, PRESIDIO, CA — P.M. Initial: KP

RGA Project #: TR10249 — Sampled By: MARY TRAUTH — Sampling Date: 5.12.04

Sample(s) Sent To: ☐ R.J. Lee ☐ Micro ☒ Other: ____ — Turnaround Time: ___ Rush ___ 24Hrs ___ 3-5 Days

Fax Report To: ☒ 510-547-1983 ☐ 415-834-9670 ☐ 209-525-8109 ☐ (Fax #) ____

ANALYZED BY RGA (NAME): ____ DATE: ____

---

SAMPLE ID: M342189 — TIME ON: 908 — TIME OFF: 1202
SAMPLE LOCATION: MARIANNE 1-A — FLOW RATES: 2.0 (LPM)
TOTAL MINUTES: 174 — VOLUME: 348 (L)
SAMPLE TYPE: ___ Clearance ___ Baseline ___ Perimeter ___ Area ___ Blank — Number of Fibers ____ Number of Fields ____
WORK ACTIVITY: WEEDING IN SERPENTINE SOIL — AIRBORNE FIBER CONC. = ____ fibers/cc

---

SAMPLE ID: M342190 — TIME ON: 132 — TIME OFF: 315
SAMPLE LOCATION: MARIANNE 1-B — FLOW RATES: 2.0 (LPM)
TOTAL MINUTES: 105 — VOLUME: 210 (L)
SAMPLE TYPE: ___ Clearance ___ Baseline ___ Perimeter ___ Area ___ Blank — Number of Fibers ____ Number of Fields ____
WORK ACTIVITY: WEEDING IN SERPENTINE SOIL — AIRBORNE FIBER CONC. = ____ fibers/cc

---

SAMPLE ID: M342250 — TIME ON: 909 — TIME OFF: 1201
SAMPLE LOCATION: MARY - 2-A — FLOW RATES: 2.0 (LPM)
TOTAL MINUTES: 172 — VOLUME: 344 (L)
SAMPLE TYPE: ___ Clearance ___ Baseline ___ Perimeter ___ Area ___ Blank — Number of Fibers ____ Number of Fields ____
WORK ACTIVITY: WEEDING IN SERPENTINE SOIL — AIRBORNE FIBER CONC. = ____ fibers/cc

---

SAMPLE ID: M342198 — TIME ON: 912 — TIME OFF: 330
SAMPLE LOCATION: UPWIND — FLOW RATES: 2.0 (LPM)
TOTAL MINUTES: 368 — VOLUME: 736 (L)
SAMPLE TYPE: ___ Clearance ___ Baseline ☒ Perimeter ___ Area ___ Blank — Number of Fibers ____ Number of Fields ____
WORK ACTIVITY: ____ — AIRBORNE FIBER CONC. = ____ fibers/cc

---

SAMPLE ID: M342254 — TIME ON: 912 — TIME OFF: 330
SAMPLE LOCATION: DOWNWIND — FLOW RATES: 2.0 (LPM)
TOTAL MINUTES: 368 — VOLUME: 736 (L)
SAMPLE TYPE: ___ Clearance ___ Baseline ___ Perimeter ___ Area ___ Blank — Number of Fibers ____ Number of Fields ____
WORK ACTIVITY: ____ — AIRBORNE FIBER CONC. = ____ fibers/cc

---

Relinquished By: MARY TRAUTH — Signature: [signature] — Date/Time: 5/12/04

Received By: [signature] — Signature: 5-18-4 — Date/Time: 1030

RGA Environmental, Inc.

1466 - 66th Street, Emeryville, CA 94608, Tel: (510) 547-7771, Fax: (510) 547-1983
311 California Street Ste 320, San Francisco, CA 94102, Tel: (415) 834-9660, Fax: (415) 834-9670
948 - 11th St., Ste 11-I, Modesto, CA 94354, Tel: (209) 525-8108, Fax: (209) 525-8109

# PCM AIR SAMPLE DATA SHEET

* PCM Analysis
* NIOSH 7400A



Project Name/Address: _____ P.M. Initial: KP

RGA Project #: TR10219 Sampled By: MARY SMITH Sampling Date: _____

Sample(s) Sent To: ☐ R.J. Lee ☐ Micro ☒ Other: _____ Turnaround Time: ___Rush ___24Hrs ___3-5 Days

Fax Report To: ☒ 510-547-1983 ☐ 415-834-9670 ☐ 209-525-8109 ☐ (Fax #) _____

ANALYZED BY RGA (NAME): _____ DATE: _____

---

SAMPLE ID: M312460 TIME ON: 1:32 TIME OFF: 3:15

SAMPLE LOCATION: MARY 2-B FLOW RATES: 2.0 (LPM)

TOTAL MINUTES: 105 VOLUME: 210 (L)

SAMPLE TYPE: ___Clearance ___Baseline ___Perimeter ___Area ___Blank Number of Fibers _____ Number of Fields _____

WORK ACTIVITY: WEEDING IN SERPENTINE SOIL *AIRBORNE FIBER CONC.* = _____ *fibers/cc*

---

SAMPLE ID: M342255 TIME ON: 1:45 TIME OFF: 2:15

SAMPLE LOCATION: STEL - MARY FLOW RATES: 2.0 (LPM)

TOTAL MINUTES: 30 VOLUME: 60 (L)

SAMPLE TYPE: ___Clearance ___Baseline ___Perimeter ___Area ___Blank Number of Fibers _____ Number of Fields _____

WORK ACTIVITY: WEEDING IN SERPENTINE SOIL *AIRBORNE FIBER CONC.* = _____ *fibers/cc*

---

SAMPLE ID: M342263 TIME ON: 2:15 TIME OFF: 3:15

SAMPLE LOCATION: STEL - MARIANNE FLOW RATES: 2.0 (LPM)

TOTAL MINUTES: 30 VOLUME: 60 (L)

SAMPLE TYPE: ___Clearance ___Baseline ___Perimeter ___Area ___Blank Number of Fibers _____ Number of Fields _____

WORK ACTIVITY: WEEDING IN SERPENTINE SOIL *AIRBORNE FIBER CONC.* = _____ *fibers/cc*

---

SAMPLE ID: _____ TIME ON: _____ TIME OFF: _____

SAMPLE LOCATION _____ FLOW RATES: _____ (LPM)

TOTAL MINUTES: _____ VOLUME: _____ (L)

SAMPLE TYPE: ___Clearance ___Baseline ___Perimeter ___Area ___Blank Number of Fibers _____ Number of Fields _____

WORK ACTIVITY: _____ *AIRBORNE FIBER CONC.* = _____ *fibers/cc*

---

SAMPLE ID: _____ TIME ON: _____ TIME OFF: _____

SAMPLE LOCATION _____ FLOW RATES: _____ (LPM)

TOTAL MINUTES: _____ VOLUME: _____ (L)

SAMPLE TYPE: ___Clearance ___Baseline ___Perimeter ___Area ___Blank Number of Fibers _____ Number of Fields _____

WORK ACTIVITY: _____ *AIRBORNE FIBER CONC.* = _____ *fibers/cc*

---

Relinquished By: MARY SMITH Signature: _____ Date/Time: 5/12/04

Received By: M. Gilbert 10:30 Signature: 5-18-4 Date/Time: _____

# TABLES

**Table 1**
**Asbestos Results for Air Samples**
**Asbestos Exposure Assessment**
Presidio of San Francisco, California

| Sample Name | Sample Location | Sample Type | Sample Date | Asbestos Content (f/cc) | 8-Hour TWA (f/cc) | 30-Minute TWA (f/cc) |
|---|---|---|---|---|---|---|
| **Baker Beach Disturbed Area 1** | | | | | | |
| M342258 | Upwind | Perimeter | 05/11/04 | <0.006 | NA | NA |
| M342262 | Downwind | Perimeter | 05/11/04 | <0.006 | NA | NA |
| M342253 | Marianne Gibbons - 1A | Personal, 1 of 3 | 05/11/04 | <0.014 | -- | NA |
| M342251 | Marianne Gibbons - 1B | Personal, 2 of 3 | 05/11/04 | <0.028 | -- | NA |
| M342197 | Marianne Gibbons - 1C | Personal, 3 of 3 | 05/11/04 | <0.011 | <0.008[2] | NA |
| M342256 | Mary O. Zibilich - 2A | Personal, 1 of 3 | 05/11/04 | <0.015 | -- | NA |
| M342200 | Mary O. Zibilich - 2B | Personal, 2 of 3 | 05/11/04 | <0.028 | -- | NA |
| M342234 | Mary O. Zibilich - 2C | Personal, 3 of 3 | 05/11/04 | <0.011 | <0.008[2] | NA |
| M342209 | Marianne Gibbons - STEL | Excursion | 05/11/04 | <0.045 | NA | <0.045 |
| M342191 | Mary O. Zibilich - STEL | Excursion | 05/11/04 | <0.045 | NA | <0.045 |
| **Baker Beach Disturbed Area 2** | | | | | | |
| M342179 | Upwind | Perimeter | 05/13/04 | NA[1] | NA[1] | NA[1] |
| M342173 | Downdwind | Perimeter | 05/13/04 | <0.006 | NA | NA |
| M342188 | Marianne Gibbons - 1A | Personal, 1of 2 | 05/13/04 | <0.011 | -- | NA |
| M342159 | Marianne Gibbons - 1B | Personal, 2 of 2 | 05/13/04 | 0.021 | 0.005[2] | NA |
| M342175 | Mary O. Zibilich - 2A | Personal, 1 of 1 | 05/13/04 | <0.011 | <0.003[2] | NA |
| M342505 | Mike Reed - 3A | Personal, 1 of 1 | 05/13/04 | <0.011 | <0.003[2] | NA |
| M342244 | Marianne Gibbons - STEL | Excursion | 05/13/04 | <0.045 | NA | <0.045 |
| M342181 | Mike Reed - STEL | Excursion | 05/13/04 | <0.045 | NA | <0.045 |
| **Presidio Golf Course** | | | | | | |
| M342198 | Upwind | Perimeter | 05/12/04 | <0.004 | NA | NA |
| M342254 | Downwind | Perimeter | 05/12/04 | <0.004 | NA | NA |
| M342189 | Marianne Gibbons - 1A | Personal 1 of 2 | 05/12/04 | 0.015 | -- | NA |
| M342190 | Marianne Gibbons - 1B | Personal , 2 of 2 | 05/12/04 | 0.014 | 0.008[2] | NA |
| M342250 | Mary O. Zibilich - 2A | Personal, 1 of 2 | 05/12/04 | <0.008 | -- | NA |
| M342460 | Mary O. Zibilich - 2B | Personal, 2 of 2 | 05/12/04 | <0.013 | <0.006[2] | NA |
| M342263 | Marianne Gibbons - STEL | Excursion | 05/12/04 | <0.045 | NA | <0.045 |
| M342255 | Mary O. Zibilich - STEL | Excursion | 05/12/04 | <0.045 | NA | <0.045 |

Notes
f/cc - fibers per cubic centimeter
TWA - Time weighted average
NA - Not applicable
Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELs) are 0.1 f/cc for an 8-hour TWA and 1.0 f/cc for a 30-minute excursion.
Air analysis for asbestos using PCM NIOSH 7400A - Phase Contrast Microscopy (PCM) National Institute for Occupational Safety and Health (NIOSH) analytical method 7400A.

[1] Filter was overloaded with particles, therefore no fiber count was possible.

[2] Sum of total sample exposure divided by 8-hours [(S1*T1)+(S2*T2)…/480 minutes].

**PHOTOGRAPHS**

Photograph 1 Baker Beach Disturbed Area 2A

Photograph 2 Serpentinite Soils at Presidio Golf Course

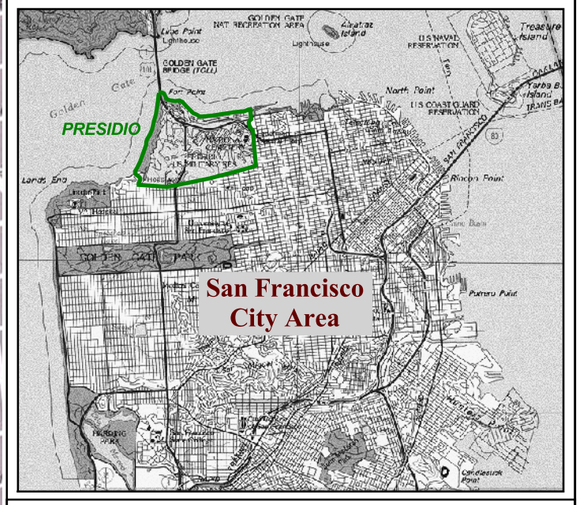
Photograph 3 Exposure Assessment at Baker Beach Disturbed Area 2A

Photograph 4 Exposure Assessment at Baker Beach Disturbed Area 2

**FIGURES**


N

1000 0 1000 Feet




## SITE LOCATION MAP

Treadwell&Rollo

THE PRESIDIO TRUST

Presidio Trust
34 Graham Street
P.O. Box 29052
San Francisco, CA
94129-0052
415/561-5300
fax 415/561-5315

March 2005

FIGURE 1

PACIFIC OCEAN

BB1SS201 (5%)
BB1SS200 (10%)
BB1SS202 (3%)
03BB1SB-107 (ND)
03BB1SB-109 (0.5%)
BB1SS203 (<1% / <1%)
BB2SS211 (2%)
BB1SS204 (2%)
BB1SS205 (3% / 3%)
03BB2ASS-104 (1%)
BB2SS210 (2%)
BB2SS212 (2% / 2%)
BB2SS213 (5%)
BB2SS214 (2%)
03BB2ASS-100 (ND)
03BB2ASS-102 (ND)
BB2SS209 (2% / 10%)
BB2SS208 (2%)
BB2SS206 (3%)
BB2SS205 (2%)
BB2SS207 (2%)
BB2SS204 (3%)
BB2SS203 (5%)
BB2SS202 (2%)
BB2SS201 (3%)
BB2SS200 (3%)

BAKER BEACH DISTURBED AREA 1
BAKER BEACH DISTURBED AREA 2A
BAKER BEACH DISTURBED AREA 2

BATTERY MARCUS MILLER
BATTERY BOUTELLE
BATTERY GODFREY

MERCHANT RD
LINCOLN BLVD

1658
1390
1389
1647
1648
1646
1643
1644
1208
1207
1206

N
120 0 120 Feet

## LEGEND

- BB1SS203 (<1% / <1%) — 2004 Asbestos Soil Sampling Location (percent chrysotile / duplicate sample)
- 03BB2ASS-104 (1%) — 2003 Asbestos Soil Sample Location (percent chrysotile)
- (ND) — Not Detected
- Initial Perimeter Air Sampling Location
- Approximate Limits of Exposure Assessment Work Area (Morning)
- Approximate Limits of Exposure Assessment Work Area (Afternoon)
- Topographic Contour (Contour Interval : 5 ft)
- Presidio Base map
- Approximate Lateral Extent of Landfill
- Building

Notes:
2003 Asbestos Results from Draft Interim Data Report, Baker Beach Disturbed Areas 1, 1A, 2 and 2A, MACTEC, 19 November 2003.

Landfill outlines are approximate.

Base map provided by the Presidio Trust in June 2003.

Horizontal Datum: NAD 27, CA State Plane Coordinates, Zone 3, feet

Vertical Datum (topography): North American Vertical Datum, NAVD88

# BAKER BEACH DISTURBED AREAS 1 AND 2 ASBESTOS SAMPLING LOCATIONS

Treadwell&Rollo

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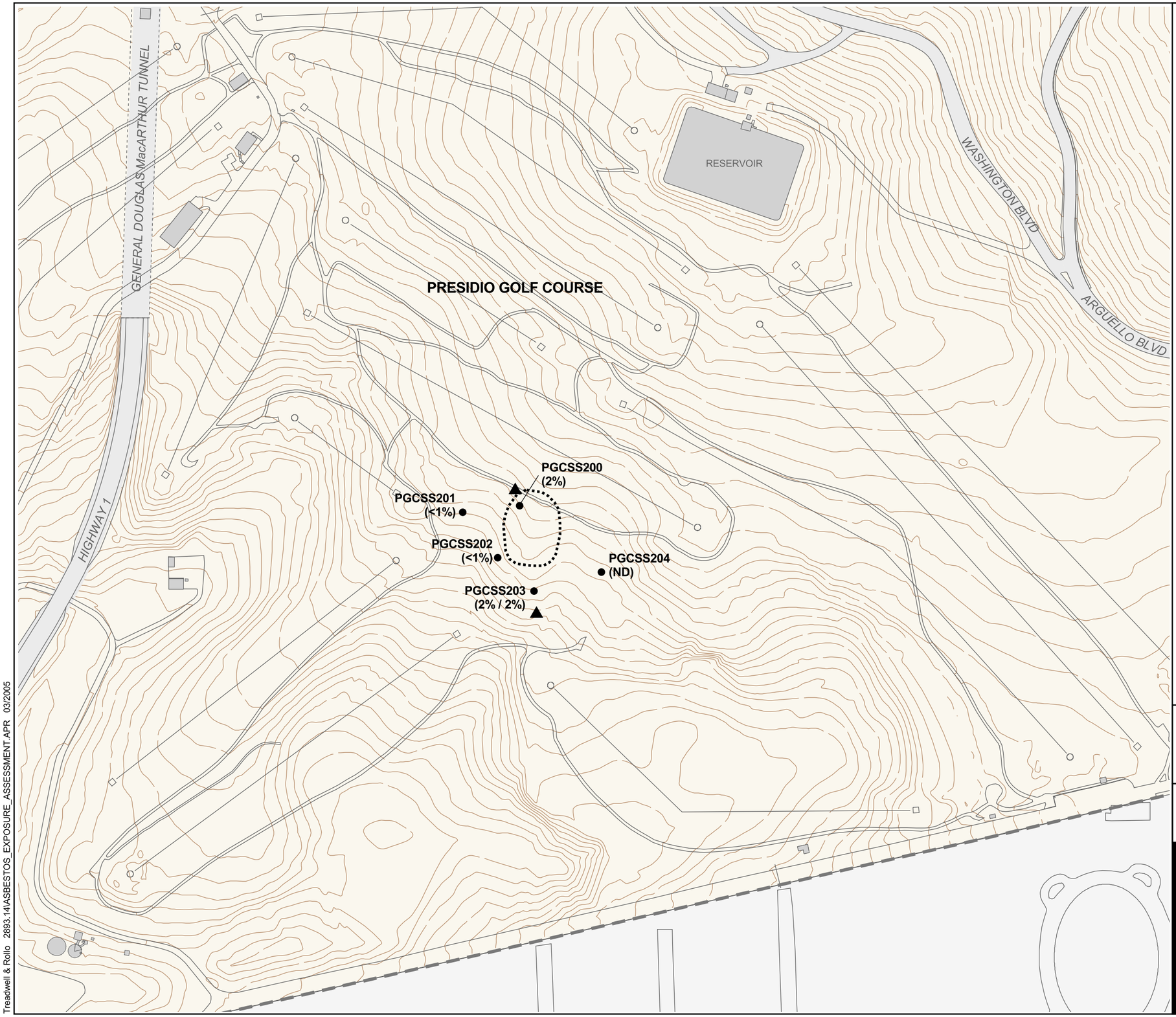
March 2005

FIGURE 2

Treadwell & Rollo 2893.14\ASBESTOS_EXPOSURE_ASSESSMENT.APR 03/2005




N

250 0 250 Feet

## LEGEND

- **PGCSS200 (2%)** — 2004 Asbestos Soil Sampling Location (percent chrysotile / duplicate sample)
- **(ND)** — Not Detected
- Initial Perimeter Air Sampling Location
- Approximate Limits of Exposure Assessment Work Area
- Presidio Boundary
- Presidio Basemap
- Topographic Contours (Contour Interval : 5 ft)
- Building

Notes:
Base map provided by the Presidio Trust in June 2003.

Horizontal Datum: NAD 27, CA State Plane Coordinates, Zone 3, feet

Vertical Datum (topography): North American Vertical Datum, NAVD88

**PRESIDIO GOLF COURSE**
**ASBESTOS SAMPLING LOCATIONS**

Treadwell&Rollo

THE PRESIDIO TRUST

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March 2005

FIGURE 3

Treadwell & Rollo 2893.14ASBESTOS_EXPOSURE_ASSESSMENT.APR 03/2005